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Pre-Draft Review - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024 renewal

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov>
To: "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

Tue, Sep 3, 2024 at 7:20 AM

Carrie,

Good morning. I have attached the pre-draft permit, fact sheet and notice for your review. The pre-draft permit still has all of the changes highlighted to make it easier for the company to review. Please respond with any comments or questions.

Thanks,
Dan

3 attachments



concurrent notice for renewal.docx

18K



DPFactSheet R30-06500001-2024 9-2-24.docx

88K



DPPermit R30-06500001-2024 9-2-24.docx

407K

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

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
U. S. Silica Company
Berkeley Springs Plant
R30-06500001-2024

Laura M. Crowder
Director, Division of Air Quality

Issued: Draft/Proposed • Effective: [Equals issue date plus two weeks]
Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]

Permit Number: **R30-06500001-2024**
Permittee: **U. S. Silica Company**
Facility Name: **Berkeley Springs Plant**
Permittee Mailing Address: **P.O. Box 187, Berkeley Springs, WV 25411**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 C 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:	Berkeley Springs, Morgan County, West Virginia
Facility Mailing Address:	P.O. Box 187, Berkeley Springs, WV 25411
Telephone Number:	(304) 258-2500
Type of Business Entity:	Corporation
Facility Description:	Silica Sand Processing Plant
SIC Codes:	1446
UTM Coordinates:	739.59 km Easting \$ 4,393.48 km Northing \$ Zone 17

Permit Writer: Dan Roberts

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.

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

1.1 Emission Units

Emission Unit ID ^(1,2,3)	Emission Point ID	Emission Unit Description ⁽⁴⁾	Design Capacity		Year Installed/Modified	Control Device ⁽⁵⁾	PFD ID
			TPH	TPY x 10 ⁶			
Primary Crushing Plant							
VIBFD1	T1, T2	Primary Crusher- Feed Bin and Vibratory Feeder	1000	8.8	Pre - 1970	MD, IMC	1
CRUSH 2	Stack #1	4' Jaw Crusher	800	7	Pre- 1970	Bldg. #3, CF #1-Torit DF-T4-32	2
CONV3	Stack #1	42" Short Belt under primary crusher	800	7	Pre-1970	IMC, BE (Bldg. #3), particle size, CF #1-Torit DF-T4-32	3
CONV 2	Stack #1	42" Incline Belt	800	7	Pre-1970	IMC, BE (Bldg. #3), particle size, CF #1-Torit DF-T4-32	4
CONV1	T3	42" Stacker Belt to Reclaim Stockpile	800	7	Pre-1970	PE, particle size. IMC	5
Reclaim Stockpile	Reclaim Stockpile	Reclaim Stockpile	800	7	Pre-1970	PE, particle size. IMC	6
Secondary Crushing Plant							
VIBFD2	N/A	Vibratory Feeders #1 thru #5 in reclaim tunnel	400	3.5	Pre-1970	Tunnel enclosure, IMC, particle size	7
CONV4	N/A	36" Reclaim Conveyor	400	3.5	Pre-1970	Tunnel enclosure, IMC, particle size	8
CONV5	N/A	42" Conveyor to Secondary Crusher	400	3.5	Pre- 1970	Full Enclosure, BE (Bldg. #5), IMC, particle size	9
CRUSH 3	Stack #2	Symons Secondary Crusher and Surge Bin	400	3.5	Pre- 1970	Full Enclosure, BE (Bldg. #5), IMC, particle size Wsc #2 Sly Impinjet 270	10
CONV 6	N/A	36 "conveyor	400	3.5	Pre-1970	FE, IMC, BE (Bldg. #5)	11.1
CONV 7	N/A	30" Transfer Conveyor	400	3.5	Pre-1970	FE, IMC, BE (Bldg. #5)	12.1
CONV 8	T4	#2 Stone Tank	400	3.5	Pre-1970	FE, IMC	13
Wet Processing Plant (Rod Mill Building)							
CONV12	N/A	24" #2 Stone Tank discharge conveyor C-1	200	1.75	Pre-1970	FE, BE (Bldg. #4), IMC	14
CONV13	N/A	24" Conveyor C-2	200	1.75	Pre-1970	FE, BE (Bldg. #4), IMC	15
CONV14	N/A	24" Conveyor C-3	200	1.75	Pre-1970	FE, BE (Bldg. #4), IMC	16
MILL1	N/A	Hardinge Rod Mill	200	1.75	Pre-1970	FE, BE (Bldg. #4), SS	17
CONV15	N/A	18" conveyor C-4 to Rod Mill tailings	150	1.3	Pre-1970	SS	18
SCREEN 1	N/A	METSO 8x20 Screen	200	1.75	2011	FE, BE (Bldg. #4), SS	19.1
TANK 2	N/A	Vessels, Bins, tanks and slurry boxes in Rod Mill Building	200	1.75	Pre-1970	FE, BE (Bldg. #4), SS	20
WETSE1 thru WETSE5	N/A	#1-#5 Linatex Separators	200	1.75	Pre-1970	FE, BE (Bldg. #6), SS	21
FERRO1	N/A	Ferro Filters	200	1.75	Pre-1970	SS	22
CLASS3 & 4	N/A	Hydrosizers	200	1.75	Pre-1970	SS	23.1
FCcell	N/A	Outokumpo Flotation Cells	160	1.40	2004	SS	24
CONV54	N/A	Feed conveyor to Denver Ball Mill	50	0.44	2000	FE, BE (Bldg. #4), Damp Sand	25
MILL 8	N/A	Denver 4' X 8" Ball Mill	50	0.44	2000	FE, BE (Bldg. #4), Damp Sand	26
PIPE 1	N/A	Wet Process Sand Slurry Piping	50	0.44	Pre-1970	SS	27
CONV 18	N/A	30" Stationary Conveyor in Fluid Bed Drain Shed (Bldg. #6)	200	1.75	Pre-1970	SS	28
CONV 19	N/A	30" Shuttle Conveyor in Fluid Bed Drain Shed	200	1.75	Pre-1970	FE, (BE) Bldg. #6, SS	29.2
CONV 20 & CONV 22	N/A	30" F-1 feed hopper conveyor and 30" F-2 feed hopper conveyor	200	1.75	1975	FE, Bldg. #6	30
CONV 21	T5	24" C-1 outside conveyor	200	1.75	1975	PE	31
CONV 23	T6	24" C-2 outside conveyor	200	1.75	1975	PE	32
CONV 24	T7	24" C-3 conveyor	200	1.75	1975	FE	33
VIBFD4	T8	C3 Belt, Vibratory feeder	200	1.75	1975	FE	34.1
DRYER 1 (3S)	Stack #3	Fluid Bed Dryer - 71 MMBtu/hr	200	1.75	1975	WSc#3 Sly Impinjet Model 1130	35
CONV 25	Stack #25	30" C-4 tunnel conveyor	200	1.75	1975	Cartridge Filter #25 Torit DF-4DF-48	36
SCREEN16	Stack #25	Tyler Ty-Speed shaker screen	200	1.75	1995	Cartridge Filter #25 Torit DF-4DF-48	37
Screening and Unground Sand Processing							
CONV26	Stack #25	24" #3 dryer conveyor	200	1.75	Pre-1975	FE, CF #25-Torit DF-4DF-48	122
CONV 27	Stack #25	24" #2 tunnel conveyor	200	1.75	Pre-1975	FE, CF #25-Torit DF-4DF-48	123
ELEV 4	Stack #6	Elevator #1	200	1.75	Pre-1975	FE, Bldg. #7, CF #6-Torit M/N 2DFA-155	124
VIBFD5	Stack #6	Grasshopper Vibrating Feeder	200	1.75	1973	Totally enclosed, equipment also enclosed in Bldg. #7. CF #6-Torit M/N	125

						2DFA-155	
CONV 39-41	Stack #6	#1 to #3 Magnet Rolls	200	1.75	Pre-1975	Chutes and piping are totally enclosed, equipment also enclosed in Bldg. #7, CF #6-Torit M/N 2DFA-155	126
SCREN 7-9,14-15 (1E)	Stack #36	#1 to #5 Rotex Screens (1S-5S)	375	0.65	1995-1997	Chutes and piping are totally enclosed, equipment also enclosed in Bldg. #7, CF #36-Torit DF-T2-8 (1C)	127
BE01 (E2)	Stack #6	Bucket Elevator #1 ¹	150	1.314	2012	Fabric filter - CF #6 (Torit M/N 2DFA-155)	119
BE02 (E2)	Stack #6	Bucket Elevator #2 ¹	150	1.314	2012	Fabric filter - CF #6 (Torit M/N 2DFA-155)	120
LS01 (FE3)	Stack #6	Dust Suppression Hopper (DSH) System Load out Spout	150	1.314	2012	ID, MD	121
MOB-CONV	N/A	342D Mobile Conveyor	300	2.63	2017	None	
BE-03	N/A	Cristobalite Bucket Elevator #3	100	0.88	2017	None	
C Silo	N/A	Cristobalite Silo	150 tons		2017	None	
CONV 55	N/A	Damp Conveyor from High Iron Sand	40		2019	None	
CONV 30	Stack #6	20" Tailings Conveyor	30	0.263	Pre-1975	FE (Bldg. #7), CF #6 – Torit M/N 2DFA-155	128
CONV 29	Stack #6	#1 Dry sand conveyor	175	1.533	Pre-1975	FE (Bldg. #7), CF #6 – Torit M/N 2DFA-155	129
ELEV 2	Stack #7	#3 Elevator	30	0.263	Pre-1975	FE (Bldg. #7), CF #7-M/N DFT4-32-SH Cartridge Filter	130
ELEV 1	Stack #7	#2 Elevator	75	0.66	Pre-1975	FE (Bldg. #7), CF #7-M/N DFT4-32-SH Cartridge Filter	131
ELEV 3	Stack #7	#4 Elevator	75	0.66	Pre-1975	Chutes and piping are totally enclosed, equipment also enclosed in Bldg. #7, CF #7-M/N DFT4-32-SH Cartridge Filter	132
SCREN 10-13 and SCREN22-23 and SCREN-4	Stack #7	SCREN 10-13: #71 thru #74 Rotex Screens; SCREN 22-23: #61 and #62 Rotex Screens and SCREN 4: Tyler Hummer Screen	75	0.66	Modified 1996 Pre-1975	Chutes and piping are totally enclosed, equipment also enclosed in Bldg. #7, CF#7 (M/N DFT4-32-SH Cartridge Filter)	133.1
SCREN 17 (1E)		#1 Rotex Screen (1S)	50	0.44	1999		
CONV 31	Stack #7	24" #9 and #10 Tank conveyor	75	0.66	Pre-1975	Chutes and piping are totally enclosed, FE (Bldg. #7), CF #7-M/N DFT4-32-SH Cartridge Filter	134
CONV32	N/A	24" #11 and #12 Tank conveyor	75	0.66	Pre-1975	Chutes and piping are totally enclosed, Building Enclosure #7	135
CONV36	N/A	20" C-10 conveyor	110	0.96	Pre-1975	Chutes and piping are totally enclosed, Building Enclosure #7	136
CONV 37	N/A	20" C-11 conveyor belt	110	0.96	Pre-1975	FE, BE (Bldg. #7)	137
CONV33	Stack #7	24" #1 Pulverizer Tank belt conveyor	200	1.75	Pre-1975	FE (Bldg. #7), CF #7-M/N DFT4-32-SH Cartridge Filter	138
CONV34	N/A	24" #2 Pulverizer Tank belt conveyor	200	1.75	Pre-1975	FE	139
CONV 51	Stack #27	24" 30 mesh loadout conveyor	200	1.75	Pre-1975	FE, CF #27-Torit DF-T2-8	140
PACKR1	Stack #40	Palletizing Automatic Bagger/Packaging Equipment—50 lb Bagger	36	0.32	2018	Piping is totally enclosed, BE, CF #40-Torit DF-T2-8	141
Milling Process							
Pulverizer Tank #19	Stack #27	Feed Silo for #1-#4 pebble mills	150	1.32	Pre-1970	FE, CF#27-Torit DF-T2-8	60
SCREW3	Stack #10	1-2 Screw Conveyor	30	0.26	Pre-1970	FE, BE (Bldg. #11), CF#10-Mikropul CFH 40T-20-B	61
SCREW5	N/A	Generic EUID for Screw Conveyors	30	0.26	Pre-1970	FE	62.1
SCREW4	Stack #11 and Stack #10 (2 Collection Points)	Mills #3 & #4 Screw Conveyors	30	0.26	Pre-1970	FE, BE (Bldg. #11), CF#11 (Torit DFT 4-48), and CF#10 (Mikropul CFH 40T-20-B)	63.1
#1 Mill Feed Bin	Stack #10	#1 Mill Feed Bin	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF#10-Mikropul CFH 40T-20-B	64
#2 Mill Feed Bin	Stack #10	#2 Mill Feed Bin	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF#10-Mikropul CFH 40T-20-B	65
#3 Mill Feed Bin	Stack #11	#3 Mill Feed Bin	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF#11 (Torit DFT 4-48)	66.1

¹ Only one Bucket Elevator (BE01 or BE02) can operate at a time.

#4 Mill Feed Bin	Stack #11	#4 Mill Feed Bin	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF#11 (Torit DFT 4-48)	67.1
FEEDB1	Stack #10	Feeder Belt for #1 Pebble Mill	15	0.13	Pre-1970	FE, BE (Bldg. #11), CF#10-Mikropul CFH 40T-20-B	68
FEEDB2	Stack #10	Feeder Belt for #2 Pebble Mill	15	0.13	Pre-1970	FE, BE (Bldg. #11), CF#10-Mikropul CFH 40T-20-B	69
FEEDB3	Stack #11	Feeder Belt for #3 Pebble Mill	15	0.13	Pre-1970	FE, BE (Bldg. #11), CF#11 (Torit DFT 4-48)	70.1
FEEDB4	Stack #11	Feeder Belt for #4 Pebble Mill	15	0.13	Pre-1970	FE, BE (Bldg. #11), CF#11 (Torit DFT 4-48)	71.1
MILL2	Stack #10	#1 Pebble Mill	100	0.88	Pre-1970	FE, BE (Bldg#11), CF#10-Mikropul CFH 40T-20-B	72.1
MILL3	Stack #10	#2 Pebble Mill	100	0.88	Pre-1970	FE, BE (Bldg#11), CF#10-Mikropul CFH 40T-20-B	73.1
MILL4	Stack #11	#3 Pebble Mill	100	0.88	Pre-1970	FE, BE (Bldg#11), CF#11- Torit DFT 4-48	74.1
MILL5	Stack #11	#4 Pebble Mill	100	0.88	Pre-1970	FE, BE (Bldg#11), CF#11- Torit DFT 4-48	75.1
SCREW6	Stack #10	Screw Conveyor for #1 Mill discharge	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #10-Mikropul CFH 40T-20-B	76
AIRSD7	Stack #10	Airslide for #2 Mill discharge	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #10-Mikropul CFH 40T-20-B	77
SCREW7	Stack #11	Screw Conveyor for #3 Mill discharge	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #11 (Torit DFT 4-48)	78.1
AIRSD8	Stack #11	Airslide for #4 Mill discharge	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #11 (Torit DFT 4-48)	79.1
ELEV 6	Stack #10	#1 Mill Elevator	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #10-Mikropul CFH 40T-20-B	80
ELEV 7	Stack #10	#2 Mill Elevator	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #10-Mikropul CFH 40T-20-B	81
ELEV 8	Stack #11	#3 Mill Elevator	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #11 (Torit DFT 4-48)	82.1
ELEV 9	Stack #11	#4 Mill Elevator	100	0.88	Pre-1970	FE, BE (Bldg. #11), CF #11 (Torit DFT 4-48)	83.1
AIRSE 1	N/A	#1 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	84
AIRSE 2	N/A	#2 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	85
AIRSE 3	N/A	#3 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	86
AIRSE 4	N/A	#4 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	87
AIRSD9	N/A	Airslide for #1 Separator Feed	100	0.88	Pre-1970	BE, FE (Bldg. #11)	88
SCREW16	N/A	#3 Separator Screw Conveyor	100	0.88	Pre-1970	BE, FE (Bldg. #11)	89
SCREW17	N/A	#4 Separator Screw Conveyor	100	0.88	Pre-1970	BE, FE (Bldg. #11)	90
ELEV14	Stack #39	#14 Elevator	150	1.32	Pre-1970	BE (Bldg. #11), FE, CF #39-Mikropul 8-20-V	91
Pulverizer Tank #20	Stack #27	Feed Silo for #5 and #6 pebble mills	150	1.32	Pre-1970	BE (Bldg. #11), FE, CF #27 (Torit DF-T2-8)	92
#5 Mill Feed Bin	Stack #12	#5 Mill Feed Bin	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12-(Mikropul CFH 40T-20-B)	93
FEEDB5	Stack #12	#5 Mill Feeder Belt	15	0.13	Pre-1970	BE (Bldg. #11), FE, CF #12-(Mikropul CFH 40T-20-B)	94
MILL6	Stack #12	#5 Pebble Mill	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12-(Mikropul CFH 40T-20-B)	95
AIRSD 2	N/A	Airslide discharge for #5 Mill	100	0.88	Pre-1970	BE (Bldg. #11), FE	96
ELEV10	Stack #12	#5 Mill Elevator	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12-(Mikropul CFH 40T-20-B)	97
AIRSE 5	N/A	#5 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	98
SCREW18	N/A	Screw Conveyor for #5 Air Separator	100	0.88	Pre-1970	BE, FE (Bldg. #11)	99
#6 Mill Feed Bin	Stack #12	#6 Mill Feed Bin	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	100
FEEDB6	Stack #12	#6 Mill Feeder Belt	15	0.13	Pre-1970	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	101
MILL7	Stack #12	#6 Pebble Mill	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	102.1
AIRSD 3	Stack #12	Airslide discharge for #6 Mill	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 Mikropul CFH 40T-20-B	103
ELEV11	Stack #12	#6 Mill Elevator	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 Mikropul CFH 40T-20-B	104
AIRSE 6	N/A	#6 Air Separator	100	0.88	Pre-1970	BE (Bldg. #11), FE	105
SCREW19	N/A	Screw Conveyor for #6 Air Separator	100	0.88	Pre-1970	BE (Bldg. #11), FE	106
Microsizer #3	Stack #42	MS-20 Microsizer #3	25	0.219	2005	CF #42 (Torit M/N DFT 3-6), BE (Bldg. #11)	107.1
BFI	Stack #41	Belt Feeder for Microsizer #3	20	0.175	2005	CF #41 (Torit M/N DFT 2-4-155 (2C)), BE (Bldg. #11)	108

ELEV22	Stack #41	Ground Fines Bucket Elevator #1	20	0.175	2005	CF #41 (Torit M/N DFT 2-4-155 (2C)), BE (Bldg. #11)	109.1
ELEV24	Stack #41	CGS Elevator #2	20	0.175	2005	CF #41 (Torit M/N DFT 2-4-155 (2C)), BE (Bldg. #11)	110.1
Screen 21	Stack #41	CGS Rotex Screen	25	0.22	2005	CF #41 (Torit M/N DFT 2-4-155 (2C)), BE (Bldg. #11)	111
AIRSD1	Stack #41	Airslide 2 for Ground Fine	20	0.175	2005	CF #41 (Torit M/N DFT 2-4-155 (2C)), BE (Bldg. #11)	112.1
Airslide 100	Stack #41	Airslide (2s) for CGS	8	0.07	2005	CF #41 (Torit M/N DFT2-4-155(2C))	115
AIRSD1-GENERIC	N/A (FE)	Generic EUID for Air Slides	100	0.88	N/A	FE	205.1
ELEV15	Stack #12	#9 Bucket Elevator	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	206.1
BIN2	Stack #12	Surge Bin	100	0.88	Pre-1970	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	207.1
ELEV25	Stack #15	Bucket Elevator	25	0.22	2015	CF #15	209
FEEDB25		Feed Conveyor Belt	25	0.22	2015		210
FEEDB26		Feed Conveyor Belt	10	0.09	2015		211
SCREN25		Scalping Screen	10	0.09	2015		212
BIN25		Feed Bin	10	0.09	2015		213
PNEU25		Pneumatic Conveyor	10	0.09	2015		214
HOPPR25	Stack #46	Feed Hopper	10	0.09	2015	CF #46	215
TANK25	Stack #47	Feed Bin	25	0.22	2015	CF #47	216
AIRSE25	Stack #45	Air Classifier	10	0.09	2015	CF #45	217
Classification (10/15/30/40 Micron)							
PNEU2	Stack #12	#1 Macawber Pneumatic Pumping Stations	15	0.13	1990	BE (Bldg. #11), FE, CF #12 Mikropul CFH 40T-20-B	145
PNEU4	Stack #11	#2 Macawber Pneumatic Pumping Stations	15	0.13	1996	BE (Bldg. #11), FE, CF #11 (Torit DFT 4-48)	146.1
BIN7	Stack #12	#1 & #2 Pump Feed Bins	15	0.13	Pre-1975	BE (Bldg. #11), FE, CF #12 Mikropul CFH 40T-20-B	147
#1 & #2 pumps	Stack #12	#1 & #2 pneumatic pumps	15	0.13	1996	BE (Bldg. #11), FE, CF #12 Mikropul CFH 40T-20-B	148
PNEU1 (Tech Air pumping system/station)	Stack #42	#3 Macawber Pneumatic Pumping Station (#3 Microsizer)	15	0.13	2005	CF #42 (Torit DFT3-6), BE (Bldg. #11)	208.1
AIRSL 12	Stack #12	Airslide and #1 MS-20 Microsizer	85	0.75	1990	BE (Bldg. #13), FE, CF #12 (Mikropul CFH 40T-20-B)	142.1
AIRSL 13	Stack #11	Airslide from #2 MS-20 Microsizer	85	0.75	1996	BE (Bldg. #13), FE, CF #11(Torit DFT 4-48)	143.1
Tailing Bins	Stack #12	Tailing Bins	130	1.14	Pre-1975	BE (Bldg. #11), FE, CF #12 (Mikropul CFH 40T-20-B)	144
5 Micron Classification							
ELEV16	Stack #11	5 Micron Feed Elevator	150	1.32	1996	BE (Bldg. #9), FE, CF #11 (Torit DFT 4-48)	151.1
5 Micron Feed Bin	Stack #37	5 Micron Feed Bin (6S)	150	1.32	1996	BE (Bldg. #9), FE, CF #37(Mikropul M/N CFH-8-20 (1D))	152
AIRSE 8-16, 18-19	N/A	Air Separators	20	0.18	1973	BE (Bldg. #9), FE	153
ELEV 17	Stack #37	5 Micron Return Elevator (7S & 8S)	150	1.32	1996	BE (Bldg. #9), FE, CF #37(Mikropul M/N CFH-8-20 (1D))	154
BIN 5	Stack #37	5 Micron Product Feed Bin (1S)	10	0.09	1996	BE (Bldg. #9), FE, CF #37 (Mikropul M/N CFH -8-20(1D))	155
BIN 4	Stack #38	Bulk Storage Loading Bin and Loadout Spout (2S)	10	0.09	1996	CF #38 (Mikropul M/N CFH 18-20-V-B (1C))	156.1
MIN-U-SIL Bagger Bin	Stack #38	Bagger Bin (4S)	15	0.13	1996	BE (Bldg. #9), FE, CF #38 (Mikropul M/N CFH 18-20-V-B (1C))	157.1
PACKR 7	Stack #38	MIN-U-SIL Bagger (5S)	15	0.13	1996	BE (Bldg. #9), FE, CF #38 (Mikropul M/N CFH 18-20-V-B (1C))	158.1
ELEV23	Stack #13	PEMCO Elevator/CGS Tanks, and Bulk Loadout Spout (3S1)	150	1.32	Pre 1983	FE, CF #13 (Torit DF-T3-24)	159.1
PACKR 4	Stack #20	#2 Autobagger and feed Bin	20	0.18	1981	Full Enclosure Bldg. #14 BE, CF #20 (Torit DF-T4-16)	160
PACKR 3	Stack #20	#1 Autobagger and Feed Bin	20	0.18	1981	Full Enclosure Bldg. #14 BE, CF #20 (Torit DF-T4-16)	161.1
PACKR 5 (1e & 2e)	Stack #34	Bulk Bagger and Feed Bin (1s and 2s)	15	0.13	1988	Full Enclosure Bldg. #14 BE, CF #34 (Torit DF-2D-F4 (1c))	162
Wet Float Plant							
Slurry Pumps	N/A	Slurry Pumps	25	0.22	Pre-1948	SS	38
CYCLO 4 and CYCLO 5	N/A	#1 & #2 Wet Cyclones	25	0.22	Pre-1948	SS	39

FERRO 2	N/A	Ferro Filters	25	0.22	Pre-1948	SS	40
CYCLO 3	N/A	#4 Wet Cyclone	25	0.22	Pre-1948	SS	41
CYCLO 2	N/A	Wet Cyclone Overrake	25	0.22	Pre-1948	SS	41.1
Drain Shed	N/A	Drain Shed	25	0.22	Pre-1948	SS	42
CONV46	N/A	24" Conveyor Belt	25	0.22	Pre-1970	SS	43
CONV47	N/A	24" Long Conveyor Belt	25	0.22	Pre-1970	SS	44
CLASS 5	N/A	Rake Classifier	25	0.22	Pre-1970	BE (Bldg. #16), SS	45
Conditioner	N/A	Conditioner	25	0.22	Pre-1970	BE (Bldg. #16), SS	46
Floatation	N/A	Floatation	25	0.22	Pre-1970	BE (Bldg. #16), SS	47
Vacuum Table	N/A	Vacuum Table	25	0.22	Pre-1970	BE (Bldg. #16), MC	48
CONV 48	N/A	18" Thrower Conveyor Belt	25	0.22	Pre-1970	BE (Bldg. #16), MC	49
CONV 50	N/A	30" Damp Loadout Conveyor Belt	25	0.22	Pre-1970	BE (Bldg. #17), MC	50
CONV 49	N/A	24" Conveyor	25	0.22	Pre-1970	BE (Bldg. #17), MC	51
DRYER 2 (8S)	Stack #8	Rotary Dryer 17.1 mmBTU/hr	25	0.22	Pre-1970	BE, FE, WSc #8 (Homemade)	52
SCREW21	N/A	#1 Screw Conveyor	25	0.22	Pre-1970	BE (Bldg. #17) FE	53
ELEV 19	Stack #9	#1 Elevator	25	0.22	Pre-1970	BE (Bldg. #17/18), FE CF #9 (Torit 4 DFT 32-155)	54
SCREN 18 (1E)	Stack #9	#2 Rotex Screen (2S)	50	0.44	1999	BE (Bldg. #17/18), FE CF #9 (Torit 4 DFT 32-155)	56
SCREW22	N/A	#2 Screw Conveyor	25	0.22	Pre-1970	BE (Bldg. #17), FE	57
ELEV 20	Stack #9	#2 Elevator	25	0.22	Pre-1970	FE, CF #9 (Torit 4 DFT 32-155)	58
PACKR8 (1E)	Stack #9	BFS Bulk Bagger	30	0.22	1998	FE, CF #9 (Torit 4 DFT 32-155)	59
Storage Structures							
Tank #7 and Tank #15	Stack #7	Storage Tank #15 intervented to Tank #7 at the New Screen Tower	150 Tons Each		Pre-1948	Particle size, PE, CF #7 (M/N DFT4-32-SH)	163.1
Tank #8 and Tank #16	Stack #7	Storage Tank #16 intervented to Tank #8 at the New Screen Tower	150 Tons Each		Pre-1948	Particle size, PE, CF #7 (M/N DFT4-32-SH)	163.2
Tanks #13 and #17	Stack #7	Storage Tank #17 intervented to Tank #13 at the New Screen Tower	150 Tons Each		Pre-1970	particle size, PE, CF#7 (M/N DFT-32-SH)	164.1
Tanks #9 - #12	Stack #27	Storage tanks #9, #10, #11 & #12 at the New Screen Tower	150 Tons Each		Pre-1970	particle size, PE, MD, CF #27 (Torit DF-T2-8)	165
Tanks #14 and #18	Stack #7	Storage tank #18 intervented to Tank #14 at the New Screen Tower	150 Tons Each		Pre-1970	particle size, PE, CF #7 (M/N DFT-32-SH)	166.1
Steel Tank #21	Stack #27	Steel Tank at the New Screen Tower	100 Tons		Pre-1970	particle size, PE, MD, CF #27 (Torit DF-T2-8)	167
CGS Tank	Stack #13	CGS Tank	800 Tons		1998	FE, CF #13 (Torit DF-T3-24)	168.1
PEMCO Tank	Stack #13	PEMCO Tank	250 Tons		Pre 1983	FE, CF #13 (Torit DF-T3-24)	169
SIL-CO-SIL (Supersil) storage silos #1-#4 (1e-4e)	Stack #33	#1 - #4 Silos	125 Tons Each		1984	FE, CF #33 (Torit DF-T4-16)	170
MIN-U-SIL storage silo #5 (5e)	Stack #29	#5 Silo	125 Tons		1984	FE, CF #29 (Mikropul CFH-18-20-VB)	171
MIN-U-SIL storage silos #6 and #7 (6e and E1)	Stack #28	#6 and #7 Silos	100 Tons Each		1984 1999	FE, CF #28 (Torit DF-2D-F4)	172.1
MIN-U-SIL storage silo #8 (6e and E1)	Stack #28	#8 Silo	100 Tons		1984 1999	FE, CF #28 (Torit DF-2D-F4)	172.2
ISTANK18	Stack #9	Concrete Tank at the Float Plant	100 Tons		Pre-1970	FE, CF #9 (Torit4DF-32-155)	173.1
Steel storage tank	Stack #9	Steel Tank at the Float Plant	100 Tons		Pre-1970	FE, CF #9 (Torit4DF-32-155)	174
SPOUT1	Stack #27	30 mesh loadout spout (SPOUT1)	150		Pre-1970	PE, MD, CF #27 (Torit DF-T2-8)	175
SPOUT2	Stack #27	Dry sand loadout spout (SPOUT2)	150		Pre-1970	PE, MD, CF #27 (Torit DF-T2-8)	176
SPOUT3	Stack #34	DCL loadout spout (SPOUT3)	200		Pre-1970	FE, CF #34 (Torit DF-2D-F4(1C))	177.1
SPOUT4	Stack #9	Float Plant loadout spout (SPOUT4)	150		Pre-1970	PE, MD, CF #9 (Torit4DF-32-155)	178
SPOUT5	Stack #28	10 Micron loadout chute (SPOUT5)	150		Pre-1970	PE, MD, CF #28 (Torit DF-2D-F4)	179
SPOUT6	Stack #13	CGS/DCL loadout system (SPOUT6)	250		Pre-1970	PE, MD, CF #13 (Torit DF-T3-24)	180.1
Q ROK	N/A	Q ROK Bulk Loading Spouts (1)	150		Pre-1970	MD, ID, Inherent design lowers	181.1

						fugitive emissions	
SPOUTS						MD, ID, Inherent design lowers fugitive emissions	
Q ROK SPOUTS	N/A	Q ROK Bulk Loading Spouts (2)	150		Pre-1970		181.2
#1 Stone Tank	N/A	#1 Stone Tank (Inside Building)	200		Before 1976	BE (Bldg. #5)	203.1
#2 Stone Tank	N/A	#2 Stone Tank (Inside Building)	200		Before 1976	BE (Bldg. #5)	204.1
Roads	N/A	Unpaved quarry haul roads and paved and unpaved plant roadways			Pre-1970	WT	182
Golf Sand Stockpile	N/A	Stockpile				Particle Size, MD	
Float Sand Stockpile	N/A	Stockpile				Particle Size, MD	
Limestone Processing Operations							
STOCK1T	N/A	Stockpile totaling 7,000 ft2 >1" – 180,000 TPY 1"-1/4" – 540,000 TPY MFG. Sand – 180,000 TPY	--- 15,000 tons/mo 45,000 tons/mo 15,000 tons/mo	900,000	2021	WS	FP01
CRUSH1T	N/A	Hammermill Primary Crusher	300	899,000	2021	WS	E01
CRUSH2T	N/A	Hammermill Secondary Crusher	350	720,000	2021	WS	E02
SCREN1T	N/A	Double Deck Scalping Screen	450	899,000	2021	WS	E03
SCREN2T	N/A	Double Deck Screen	450	899,000	2021	WS	E04
SCREN3T	N/A	Double Deck Screen	350	720,000	2021	WS	E05
TRUCK1T	N/A	Loading the Feeder	450	899,000	2021	WS	TP01
FEEDER1T	N/A	Feeder Transfer to Crusher	300	600,000	2021	WS	TP02
CRUSH1T	N/A	Crusher Transfer to Conveyor Belt	300	600,000	2021	WS	TP03
SCREN1T	N/A	Belt Conveyor Feeding Screen	450	899,000	2021	WS	TP04
SCRENBC1T	N/A	Screen to Conveyor Belt Feeding Crusher	275	550,000	2021	WS	TP05
SCRENBC2T	N/A	Middle Deck to Stacking Conveyor	50	100,000	2021	WS	TP06
SCRENBC3T	N/A	Lower Deck to Stacking Conveyor	75	150,000	2021	WS	TP07
STACKBC1T	N/A	Middle Deck to Conveyor Belt	50	100,000	2021	WS	TP08
STACKBC2T	N/A	Lower Deck to Conveyor Belt	75	150,000	2021	WS	TP09
CRUSH2T	N/A	Conveyor Belt Feeding Secondary Crusher	350	720,000	2021	WS	TP10
CRUSHSCR1T	N/A	Secondary Crusher Feeding Conveyor Belt	350	720,000	2021	WS	TP11
SCRENBC4T	N/A	Top Deck Feeding Conveyor	50	10,000	2021	WS	TP12
SCRENBC5T	N/A	Middle Deck Feeding Conveyor Belt	25	50,000	2021	WS	TP13
SCRENBC6T	N/A	Lower Deck Feeding Stacking Belt Conveyor	50	100,000	2021	WS	TP14
SCRENBC7T	N/A	Feed Conveyor to Wash Plant	225	500,000	2021	WS	TP15

Source ID	Equipment Description/Location	Design Capacity (Gallons)	Year Installed/Modified	PFD ID
Tank No. 1	Diesel Fuel Tank	10,000	Before 1976	185
Tank No. 2	Used Oil Tank at Maintenance garage	275	Before 1976	186
Tank No. 3	Used Oil Tank at Maintenance garage	275	Before 1976	187
Tank No. 4	#1 Oil Tank at Maintenance garage	275	Before 1976	188
Tank No. 5	#2 Oil Tank at Maintenance garage	275	Before 1976	189
Tank No. 6	#3 Oil Tank at Maintenance garage	275	Before 1976	190
Tank No. 7	#4 Oil Tank at Maintenance garage	275	Before 1976	191
Tank No. 8	Recycled Oil Tank near Float Plant	100,000	1975	192
Tank No. 11	Kerosene Tank at C & R Shop	275	1995	193
Tank No. 12	Gasoline Tank at Office Building	1000	1995	194
Tank No. 13	Lube Oil Tank at Secondary Crusher	300	Before 1976	195
Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	275	Before 1976	198
Tank No. 25	Two Propane Tanks at the electric shop	30,000 each	Before 1976	199
Tank No. 26	Propane Tank at the Quarry	2,000	1999	200
Tank No. 27	Propane Tank at #6 Oil Building	1,000	Before 1976	201

Tank No. 28	Two Propane Tanks at the C&R Shop	1,000 Gallons each	Before 1976	202
Tank No. 16	Recycled Oil	30,000 Gallons	2003	196
Tank No. 17	Recycled Oil	30,000 Gallons	2003	197

- Notes: (1) If Emission Point ID is issued in an R-13 permit, it is provided in the Table, (i.e., 1e, 2e, ...)
(2) Emission Points are identified by U. S. Silica internal inventory ID system
(3) Emission Points are also identified by U. S. Silica stack ID numbering system
(4) If Source ID is issued in an R-13 permit, it is provided in the Table, (i.e., 1s, 2s, ...)
(5) If Control equipment ID is issued in an R-13 permit, it is provided in the Table, (i.e., 1c, 2c, ...)

Abbreviations:

FE=Full Enclosure, PE=Partial Enclosure, BE=Building Enclosure, T=Tunnel or Underground, IMC=Inherent Moisture Content(1-5%), MC=Moisture Content, SS=Saturated Sand(60%moisture), WS=Water Spray, WT=Water Truck, MD=Minimized Drop Height, ID=Inherent Design, EL=Enclosed Loading Station, WSc=Wet Scrubber, CF=Cartridge Filter

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
R13-3535	November 22, 2021
R13-2595B	April 20, 2016
R13-0715F	December 11, 2003
R13-0750	June 14, 1984
R13-1970	August 13, 1997
R13-0991	April 12, 1988
R13-1917	December 22, 1995
R13-2015C	November 20, 2009
R13-2145G	January 7, 2019
R13-2423B-	July 24, 2017
R13-2299A	August 29, 2003
R13-0029A	November 19, 2018

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 39.). 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	NSPS	New Source Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM₁₀	Particulate Matter less than 10µm in diameter
CES	Certified Emission Statement	pph	Pounds per Hour
C.F.R. or CFR	Code of Federal Regulations	ppm	Parts per Million
CO	Carbon Monoxide	PSD	Prevention of Significant Deterioration
C.S.R. or CSR	Codes of State Rules	psi	Pounds per Square Inch
DAQ	Division of Air Quality	SIC	Standard Industrial Classification
DEP	Department of Environmental Protection	SIP	State Implementation Plan
FOIA	Freedom of Information Act	SO₂	Sulfur Dioxide
HAP	Hazardous Air Pollutant	TAP	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	TPY	Tons per Year
HP	Horsepower	TRS	Total Reduced Sulfur
lbs/hr or lb/hr	Pounds per Hour	TSP	Total Suspended Particulate
LDAR	Leak Detection and Repair	USEPA	United States Environmental Protection Agency
m	Thousand	UTM	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	VEE	Visual Emissions Evaluation
mm	Million	VOC	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
mmft³/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		

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 40]

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. ~~Reserved~~ 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.e.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.e.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§305.7.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§305.6.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§305.1.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 45CSR§7-3.2. **[45CSR§7-3.1] [45CSR13, R13-0715, B.3, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1, R13-0029, 4.1.2.a. and b., [R13-3535, 4.1.3.1.](#)]**
- 3.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. **[45CSR§7-3.7] [45CSR13, R13-0715, B.3, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1, R13-0029, 4.1.2.c.]**
- 3.1.11. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7. **[45CSR§7-4.1] [45CSR13, R13-0715, B.3, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1, R13-0029, 4.1.2.d., [R13-3535, 4.1.3.3.](#)]**
- 3.1.12. No person shall circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. **[45CSR§7-4.3]**
- 3.1.13. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1] [45CSR13, R13-0715, B.3, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1, R13-0029, 4.1.2.e., [R13-3535, 4.1.3.4.](#)]**
- 3.1.14. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR§7-5.2] [45CSR13, R13-0715, B.3, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1, R13-0029, 4.1.2.f., [R13-3535, 4.1.3.5.](#)]**

3.2. Monitoring Requirements

- 3.2.1. Each Process Source Operation with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions from any of the Process Source Operation are observed during these weekly observations, or at any other time, that appear to exceed the allowable visible emission requirement for the Process Source Operation, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than 24 hours from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition Section 3.2.1 if the visible emissions condition is corrected in a timely manner; the Process Source Operation is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. **[45CSR§30-5.1.c.; 45CSR13, R13-0029, 4.2.1.]**
- 3.2.2. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems monthly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.

Preventive maintenance inspections of potential fugitive dust sources, such as outdoor conveying systems, transfer points, and bulk loadouts will be conducted on a periodic basis by operations personnel. This is in addition to the monthly inspections required above.

Parking lots, roadways, other vehicle travel areas, and storage piles will be regularly observed by trained personnel to determine the need for fugitive dust control. A water truck must be available for control of dust on roadways and parking lots on an as needed basis. The water truck will be included in the facility's preventive maintenance program. Dates of water truck usage will be provided on the Pre-Shift Inspection Reports maintained by the Quarry office.

U.S. Silica shall keep all maintenance and preventive maintenance records via a mainframe computer system.

[45CSR§30-5.1.c.]

Note : Process Source operations include the following : Primary Crushing Plant, Secondary Crushing Plant, Wet Processing Plant, Screening and unground sand Processing, Milling, 10/15/30/40 Micron Classification, 5 Micron Classification, Wet Float Plant & Storage Structures.

- 3.2.3. (Note: The following section numbers match those of 40 C.F.R. §64.7)
- (b) *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (c) *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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) 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 this part, 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.

- (d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator 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.
- (2) Determination of whether the owner or operator 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.
- (e) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator 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 owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 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.

[40CFR§64.7; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

3.2.4. (Note: The following section numbers match those of 40 C.F.R. §64.8)

§ 64.8 Quality improvement plan (QIP) requirements.

- (a) Based on the results of a determination made under § 64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with § 64.6(c)(3), the part 70 or 71 permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

(b) Elements of a QIP:

- (1) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- (2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
 - (i) Improved preventive maintenance practices.
 - (ii) Process operation changes.
 - (iii) Appropriate improvements to control methods.
 - (iv) Other steps appropriate to correct control performance.
 - (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (b)(2)(i) through (iv) of this section).
- (c) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (d) Following implementation of a QIP, upon any subsequent determination pursuant to § 64.7(d)(2) the Administrator or the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (e) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40CFR§64.8; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

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 sourcespecific 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 sourcespecific 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 §§ 2254(a)(14-15) and 45CSR13]

- 3.3.2. Except as provided in the terms and conditions of specific emission units, the permittee shall conduct stack tests upon request by Director, establish parameter indicator ranges, and furnish the Secretary a written report of the results of such testing and established indicator ranges. The permittee shall use Method 5 or an alternative method approved by the Secretary for such testing. For wet scrubber control devices, parameter indicator ranges shall be established for the water pressure to the control equipment and the pressure loss of the inlet airflow to the scrubber. The permittee shall establish parameter indicator ranges and operate within these ranges to provide a reasonable assurance that the emission unit is in compliance

with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of 45CSR7A;
- b. Amount of material processed;
- c. Water pressure to the control equipment; and
- d. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the control equipment.

These records shall be maintained on site and in accordance with 3.4.2.

[45CSR§30-5.1.c.]

- 3.3.3. 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; 45CSR13, R13-0029, 4.1.2.g.]

- 3.3.4. 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; 45CSR13, R13-0029, 4.1.2.h.]**

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.]

[45CSR13, R13-2145, 4.4.1.] (SCREN 7-9, 14-15; BE01; BE02; LS01; CF #36; CF #6)

[45CSR13, R13-0029, 4.4.1.] (PACKR1)

[45CSR13, R13-2595, 4.4.1.]

[45CSR13, R13-3535, 4.4.1.]

- 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. 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 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.]**

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:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air ~~Section~~, [RCRA and Toxics Branch](#) (3ED21)
[Four Penn Center](#)
~~1650 Arch Street~~ [1600 John F. Kennedy Boulevard](#)

Philadelphia, PA 19103-~~2029~~ [2852](tel:2852)

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹For 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~~ **Fees**. 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](#).

[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. ~~Reserved. 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. ~~Reserved. 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~~ [email](#). 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.]

3.6. Compliance Plan

- 3.6.1. N/A

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.

N/A

4.0 Source-Specific Requirements - Dryers [Fluid Bed Dryer (3S), Stack #3 and Rotary Dryer (8S), Stack #8]

4.1. Limitations and Standards

4.1.1. The 650 HP and 450 HP spreader stoker fired boilers are permanently shutdown. Any restart or reconstruction shall require a 45CSR13 preconstruction permit.
[45CSR13, R13-0715, A.1] [3S, 8S]

4.1.2. The Fluid Bed dryer (3S) and the Rotary dryer (8S) shall burn the following fuels: propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil.
[45CSR13, R13-0715, A.2] [3S, 8S]

4.1.3. The following sulfur limits shall not be exceeded:

#2 Fuel Oil shall have a maximum of 0.2% S by weight.
#4, #5 and #6 Fuel Oil and Recycled oil shall have a maximum of 1.5 % sulfur by weight.
[45CSR13, R13-0715, A.3] [3S, 8S]

4.1.4. Emissions from the fluid bed and rotary sand dryers shall not exceed the following hourly rates:

Emission Unit	Particulate Matter	SO ₂	NO _x	VOC	CO
	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
Fluid Bed dryer	12.8	130.7	18.3	0.23	2.52
Rotary Dryer	9.0	26.3	3.7	0.06	0.62

[45CSR13, R13-0715, A.5] [3S, 8S]

4.1.5. Combined emissions from the Fluid Bed Dryer (3S) and Rotary Dryer (8S) shall not exceed the following annual limitations in Tons per year (TPY):

Particulate Matter – 95.48
SO₂ – 267.0
NO_x – 96.35
VOC – 1.27
CO – 13.75

[45CSR13, R13-0715, A.6] [3S, 8S]

4.1.6. The fuel rating of the recycled oil shall not exceed 150,000 BTU/gallon.

[45CSR13, R13-0715, A.7] [3S, 8S]

4.1.7. The following conditions shall be followed by the permittee for the use of Recycled Oil as dryer fuel:

a. The registrant shall not receive, store, burn or fire any recycled oil which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1 & Recycled Oil specification provided by U.S. Silica). The burning of recycled oil that does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Permit.

<u>Constituent or Property</u>	<u>Maximum Allowable Specification</u>
Arsenic	<5.0 ppm
Cadmium	<2.0 ppm
Chromium	<10.0 ppm
Lead	<100.0 ppm
PCBs	<2.0 ppm
Total Halogen	<1000.0 ppm
Flash Point	>100.0 °F

b. The registrant shall receive a chemical analysis with each shipment or delivery of recycled oil from the supplier or marketer. The analysis shall identify the name and address of the supplier or marketer, the supplier or marketer's USEPA Identification Number and the following used or recycled oil information:

- i. Date of shipment or delivery
- ii. Quantity received
- iii. Arsenic content
- iv. Cadmium content
- v. Chromium content
- vi. Lead content
- vii. PCB content
- viii. Total Halogen content
- ix. Flash point
- x. Sulfur content

c. The Director or his or her duly authorized representative may conduct or require the permittee to conduct detailed chemical analyses of any used or recycled oil received, stored or fired in the dryer burner.

[45CSR13, R13-0715, A.9] [3S, 8S]

4.1.8. The permitted facility shall comply with all provisions of 45CSR10, provided that the permittee shall comply with any more stringent requirements as may be set forth under Sections 4.1.1 to 4.1.7, 4.2.1, and 4.4.1 to 4.4.4 of the permit. The principal provisions of 45CSR10 are as follows:

§45-10-3.3

Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV. No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(3.3.f) For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

§45-10-3.4.a.

Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate based on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

§45-10-4.1.

No person shall cause, suffer, allow, or permit, the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.

§45-10-8.2.a.

At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this rule. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this rule.

[45CSR13, R13-0715, B.4] [3S, 8S]

4.1.9. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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§10-8.1a] [3S, 8S]

4.1.10. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 45CSR§10-3.

[45CSR§10-8.1b] [3S, 8S]

4.1.11. The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 45CSR§§10-3, 4 and 5 of this rule by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit.

[45CSR§10-8.2c] [3S, 8S]

4.1.12. Monitoring plans pursuant to subsection 45CSR§10-8.2.c shall be submitted to the Director within six (6) months of the effective date of this rule. Approval or denial of such plans shall be within twelve (12) months of the effective date of this rule. (Monitoring Plan approved on April 25, 2003. Compliance with terms and conditions of 45CSR13, R13-0715F assures compliance with 45CSR10 and 10A.

[45CSR§10-8.2.c.2] [3S, 8S]

4.1.13. The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 45CSR§§10-3, 4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 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.

[45CSR§10-8.3.a.] [3S, 8S]

4.1.14. The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.

[45CSR§10-8.3.b.] [3S, 8S]

4.1.15. The following scrubber pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range:

Emission Unit	Control device	Indicator Range for Pressure Drop (in H ₂ O)
Fluid Bed Dryer (3S)	Sly Impinjet 1130 Wet Scrubber	2.0 to 5.8
Rotary Dryer (8S)	Homemade Wet Scrubber	0.5 to 2.0

According to the CAM plan submitted, the pressure gauges on the scrubbers shall be operated continuously during operation of the dryers.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [3S, 8S]

4.2. Monitoring Requirements

4.2.1. Compliance with Section 3 of 45CSR7 shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the scrubber. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Said opacity evaluations of sources identified during the Method 22 survey shall only be conducted by an employee or contractor certified in 40 CFR 60 Appendix A, Method 9, Visible Emission observations. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule.

[45CSR13, R13-0715, A.12] [3S, 8S]

- 4.2.2. The Fluid Bed Dryer and the Rotary dryer shall be observed visually at least each calendar week during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 CFR 60 Appendix A, Method 22. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, visible emissions evaluations in accordance with 40 CFR 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. However, a Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.

[45CSR13, R13-0715, A.13] [3S, 8S]

4.3. Testing Requirements

- 4.3.1. Tests that are required by the Director to determine compliance with the emission limitations set forth in 4.1.4 and 4.1.5 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 100% of the peak load unless otherwise specified by the Director.

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

[45CSR13, R13-0715, B.7] [3S, 8S]

- 4.3.2. With regard to any testing required by the Director the permittee shall submit to the Director of the division of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. **[45CSR13, R13-0715, B.8] [3S, 8S]**

- 4.3.3. Within 180 days of the permit approval, and once per permit term, the permittee shall conduct or have conducted test(s) on the fluid bed and rotary dryers to determine compliance with the Particulate Matter emission limitations as set forth in Sections 4.1.4 & 4.1.5 above. Such Test(s) shall be conducted in accordance with Sections 4.3.1 and 4.3.2 contained herein. The Director, or a duly authorized representative, may witness or conduct such tests. Should the Director exercise this option to conduct such test(s), the operator shall 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§30-5.1c] [3S, 8S]

Note: Rotary Dryer tested – 12-18-2012, Fluid Bed Dryer tested – 8-3-2017.

4.4. Recordkeeping Requirements

- 4.4.1. Records of quantity and type of fuel used and the fuel sulfur content analysis shall be retained on-site by the permittee for at least five (5) years.

[45CSR13, R13-0715, A.4] [3S, 8S]

- 4.4.2. Compliance with annual limitations of SO₂, NO_x, VOC and CO in Section 4.1.5 shall be demonstrated by recordkeeping of monthly fuel use reports and fuel usage limitations conforming to the following equations. Records will be maintained on-site for at least five years and shall be submitted to the Director

upon request.

For SO₂

$$142 F_2 S_2 + 150 F_4 S_4 + 157 F_5 S_5 + 157 F_6 S_6 + 147 F_R S_R = 534,000 \text{ lbs/yr of SO}_2.$$

For NO_x

$$20 F_2 + 20 F_4 + 55 F_5 + 55 F_6 + 19 F_R + 100N + 19 P = 192,700 \text{ lbs/yr of NO}_x.$$

For CO

$$5 F_2 + 5 F_4 + 5 F_5 + 5 F_6 + 5 F_R + 84 N + 3.2 P = 27,507 \text{ lbs/yr of CO.}$$

For VOC

$$0.2 F_2 + 0.2 F_4 + 0.28 F_5 + 0.28 F_6 + 0.22 F_R + 5.5 N + 0.3 P = 2,541 \text{ lbs/yr of VOC.}$$

Where:

F₂ = #2 Fuel Oil use, in 1000 gallons, for last twelve month period.

F₄ = #4 Fuel Oil use, in 1000 gallons, for last twelve month period.

F₅ = #5 Fuel Oil use, in 1000 gallons, for last twelve month period.

F₆ = #6 Fuel Oil use, in 1000 gallons, for last twelve month period.

F_R = Recycled Fuel Oil use, in 1000 gallons, for last twelve month period.

P = Propane use, in 1000 gallons, for last twelve month period.

N = Natural gas use, in million cubic feet of gas, for last twelve month period.

S₂ = Weighted average sulfur content of all #2 Fuel Oil used in last twelve month period (by weight).

S₄ = Weighted average sulfur content of all #4 Fuel Oil used in last twelve month period (by weight).

S₅ = Weighted average sulfur content of all #5 Fuel Oil used in last twelve month period (by weight).

S₆ = Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight).

S_R = Weighted average sulfur content of all Recycled Oil used in last twelve month period (by weight).

[45CSR13, R13-0715, A.8] [3S, 8S]

- 4.4.3. Records of each shipment of recycled oil chemical analyses, quantity and type of fuel used, maximum fuel rating (BTU/gallon), and the fuel sulfur analysis shall be retained on-site by the permittee for at least five (5) years. The owner or operator shall keep record of quality control and quality assurance program for the fuel analysis. If a certified lab is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. The permittee will confirm the certified lab fuel analysis results by using an independent certified lab at least once in every six months to analyze the fuel.

[45CSR13, R13-0715, A.10] [3S, 8S]

- 4.4.4. The permittee shall monitor and record the pressure drop across each scrubber (during operation) on a daily basis. These records shall be kept on site for a minimum of 5 years and made available to the Director or Authorized Representative upon request.
[45CSR13, R13-0715, A.11] [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]
- 4.4.5. Qualified personnel shall perform visual inspections of the scrubbers at least monthly and perform routine maintenance to assure proper operation of the scrubbers. The results of inspection and performance of routine maintenance shall be recorded.
[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]
- 4.4.6. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.
[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [3S, 8S]

4.5. Reporting Requirements

- 4.5.1. *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.
- (2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:
- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) 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
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [3S, 8S]

4.6. Compliance Plan

- 4.6.1. N/A

5.0 Source-Specific Requirements [NSPS Sources]

- a) Silica sand storage silos (Stacks #28, 29 & 33)
- b) Bulk bagging operation at ground sand packaging (Stack #34)
- c) Six Rotex screens at New Screen Tower (Stacks #36 and #7)
- d) Five micron bagger and associated equipment (Stacks #37 and 38)
- e) Trash screen at Fluid Bed Dryer (Stack #25)
- f) Bulk sand bagger and associated equipment at the Wet Float Plant (Stack #9)
- g) One Rotex screen at the Wet Float Plant (Stack #9)
- h) Wet ball mill (Denver)
- i) Microsizer #3 (MS-20) and Handling Equipment (Stack #42)
- j) Screening and Underground Sand Processing (Stack #6)
- k) CGS and Handling Equipment (Stack #41)
- l) PACKR1 (Stack #40)
- m) Air Classifier and Cristobalite Processing (Stacks #15, 45, 46, and 47)
- [n\) Limestone Processing Operation](#)

5.1. Limitations and Standards

5.1.1.1. (Note: The following section numbers match those of 40 C.F.R. §60.672)

- (a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e).

^a Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

^b The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

- (b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.11. The requirements in

Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart.

- (c) [Reserved]
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
 - (1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and
 - (2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.
- (f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

[Stacks #7, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42; Mill 8] [Buildings #7, 11, 12, 14 and 17] [45CSR16; 40 C.F.R. § 60.672]

5.1.1.2. (Note: The following section numbers match those of 40 C.F.R. §60.672)

- (a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.8. The requirements in

Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e); and Monitoring of baghouses according to § 60.674(c), (d), or (e) and § 60.676(b).

^a Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

- (b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart; and Periodic inspections of water sprays according to § 60.674(b) and § 60.676(b); and A repeat performance test according to § 60.11 of this part and § 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in § 60.674(b) and § 60.676(b) are exempt from this 5-year repeat testing requirement.

- (c) [Reserved]
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
 - (1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and
 - (2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.
- (f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

[Stacks #6, #15, #40, #45, #46, #47] [Building #4, Building #7, Building #11] [CRUSH1T, CRUSH2T, SCREN1T thru SCREN3T, SCRENBC1T thru 7T, STACKBC1T and STACKBC2T] [45CSR16; 40 C.F.R. § 60.672]

5.1.2. The following emission limits shall not be exceeded:

Emission Source	Emission Point ID	Allowable PM Emissions (PPH)
<u>Silica Sand Storage Silos</u>		
Storage Silo #1- #4 ¹	1e (Stack #33)	0.2 ⁴
Storage Silo #5 ²	5e (Stack #29)	0.05 ⁴
Storage Silo #6 ³	6e (Stack #28)	0.05 ⁴

¹ In original construction, each storage tank #1-#4 was equipped with separate baghouses. The four baghouses were replaced by one cartridge filter in 1998 according to PD99-127.

² In original construction, storage tank #5 was equipped with a baghouse. The baghouse was replaced by a cartridge filter.

³ In original construction, storage tank #6 was equipped with a baghouse. The baghouse was replaced by a cartridge filter. In addition, storage tank is controlled by the same cartridge filter as storage tank #7 (see Permit No. R13-1970).

⁴ Allowable emissions were originally established in Permit No. R13-750 and revised in PD99-127.

[45CSR13, R13-750] [Stacks 28, 29 & 33]

5.1.3. Ground Sand Packaging/Loading

5.1.3.1. The maximum process weight rate for the permitted facilities (Ground Sand Packaging/Loading) shall not exceed 10 tons per hour.

[45CSR13, R13-991] [Ground Sand Packaging/Loading]

5.1.3.2. The particulate emission rate for Emission point 1e {Bulk Bagger (PACKR5), Stack #34} as defined in Permit application No. 991, shall not exceed 0.1 pounds per hour.

[45CSR13, R13-991] [Stack #34, Emission Point 1e]

5.1.3.3. The particulate emission rate for Emission point 2e (Room Venting, Stack #34), as defined in Permit application No. 991, shall not exceed 0.5 pounds per hour.

[45CSR13, R13-991] [Stack #34, Emission Point 2e]

Note : In original construction, emission points 1e and 2e were controlled by separate baghouses. Bagothouses were replaced by one cartridge filter control device. PD ISSUED 5-16-94.

5.1.4. 5 Micron Bagging System

5.1.4.1. Emissions from Mikropul cartridge baghouse Model CFH-6-V-6”B” Emission point ID No. 37 (Stack #37) and vented through Air Pollution Control Device ID No. 1C, shall not exceed 0.2 pounds of particulate matter per hour (lb./hr.).

[45CSR13, R13-1917, A.1] [Stack #37]

5.1.4.2 The maximum amount of processed material charged into the feed bin (air pollution source 6S) {5 Micron feed Bin}, return bucket elevator (top) (air pollution source 7S) [ELEV 16] and return bucket elevator (bottom) (air pollution source 8S) {ELEV 17} shall not exceed 37.5 tons per hour (TPH).

[45CSR13, R13-1917, A.2] [6S, 7S, 8S]

5.1.4.3. Emissions from Mikropul Cartridge baghouse, Model CFH-6-V-12”B”, Emission Point ID No. 38 (Stack #38), and vented through Air Pollution Control Device ID No. 2C, shall not exceed 0.2 pounds of particulate matter per hour (lb/hr).

[45CSR13, R13-1917, A.3] [Stack #38]

5.1.4.4. The maximum amount of processed material charged into the bulk storage bin (air pollution source 2S), product bin (air pollution source 1S) [Bin 5], bulk loading spout (air pollution source 3S), the bagger bin (air pollution source 4S) [MIN-U-SIL Bagger bin], and stone container model 988 DM single spout bagger (air pollution source 5S) [PACKR7] shall not exceed 35.5 tons per hour (TPH).

[45CSR13, R13-1917, A.4] [1S to 5S]

5.1.5. Particulate matter (PM) emissions shall not exceed the following hourly and annual emission limits:

Emission Source	Emission Point ID No.	Allowable PM Emissions	
		(PPH)	(TPY)
Three 100-ton storage silos ¹	Storage Silos #7, #8, #9 (E1) (Stack #28). Mikropul Horizontal Cartridge Dust Collector - #CFH-24-T Pulse Type	0.70 ^{2, (a)} 3.0	7 ^{2, (b)}

¹ Storage Tank #7 & #8 have been installed at present. Storage Tank #9 has not been installed.

² Emission limitations are included in permit No. R13-1970 and are based on specific cartridge filter equipment manufacturer and specifications submitted with Permit R13-1970. At present, the control equipment (cartridge filter) for Storage Tank #7 is a Torit Model No. #2DFA-155. This cartridge filter also controls emissions from Storage Tank #6 (see Permit No. R13-750). The cartridge filter was tested on 10/18/05 as part of the requirements of the permit.

^(a) Based on a PM emission rate of 0.022 grains/dscf (0.05grams/dscm) and a maximum dust collector gas flow rate of 3,715 defm.

^(b) Based on 8,760 hours of operation per year.

[45CSR13, R13-1970, A.1] [Stack #28]

5.1.6. SCREN 16 (45CSR13 Permit No. R13-2015)

5.1.6.1. Particulate Matter (PM) emissions shall not exceed the following hourly and annual emission limits:

Equipment	Equipment ID Number	Emission Limitations	
		lb/hr	TPY
Trash Vibrating Screen (Stack #25)	TS1 (SCREN 16)	1.0	4.4

[45CSR13, R13-2015, A.1] [Stack #25]

5.1.6.2. In accordance with the requirements of 40CFR60, Subpart OOO, the maximum particulate (PM) emissions from air pollution control device CF #25 shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter).

[45CSR13, R13-2015, A.2] [Stack #25]

5.1.6.3. The maximum hourly and annual rate of sand to the Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1(SCREN 16), shall not exceed 220.0 tons/hour and 1,927,200 tons/year.

[45CSR13, R13-2015, A.3] [SCREEN16]

5.1.6.4. The Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1, shall be controlled at all times of operation with a cartridge filter, Control Equipment ID No. CF #25.

[45CSR13, R13-2015, A.4] [CF #25]

5.1.6.5. The permittee shall operate the cartridge filter, Control Equipment ID No.CF #25, as outlined in Permit Application R13-2015.

[45CSR13, R13-2015, A.5] [CF #25]

5.1.7. Q-Rok Loading Operations and Five Rotex Screens at the New Screen Tower

5.1.7.1 The following conditions and requirements are specific to the Q-Rok loading operations:

a. The fugitive PM emissions due to the transferring of material the from Q-Rok Storage Tanks #13 & #17 and #14 & #18 to the dust suppression hopper (DSH) load out spout using the two bucket elevators (BE01 & BE02) shall be equipped with a capture and removal system (PM control device). Such PM control device shall utilize the fabric filter control technology or similar technology that has a design removal efficiency of 99% or better for PM.
[45CSR§7-5.1]

b. Visible emissions from Stack #6 shall not be greater than 7% opacity on a six minute average.
[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.1.b. ensures compliance with 45CSR§7-3.1.*

c. PM emissions from Stack #6 shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust.
[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] *Compliance with the concentration limit in 5.1.7.1.c. ensures compliance with 45CSR§7-4.1.*

d. Fugitive visible emissions from DSH loadout spout (LS01) shall not be greater than 7% opacity on a six minute average.
[40 C.F.R. §60.672(b) & Table 3 of Subpart OOO; 45CSR16; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.1.d. ensures compliance with 45CSR§7-3.1.*

[45CSR13, R13-2145, 4.1.1.]

5.1.7.2. The following conditions and requirements are specific to the five Rotex Screens:

- a. The combined annual processing rate of the five Rotex Screens shall not exceed 3,285,000 tons of sand per year.
- b. Fugitive visible emissions from Building #7 (location of the five Rotex Screens) shall not be greater than 10% opacity on a six minute average.
[45CSR16; 40 C.F.R. §60.672(b) & Table 3 of Subpart OOO; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.2.b. ensures compliance with 45CSR§7-3.1.*
- c. PM emissions from Stack #36 shall not exhibit PM greater than 0.022 grains per dry standard cubic foot of exhaust.
[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16]
- d. Visible emissions from Stack #36 shall not be greater than 7% opacity on a six minute average.
[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16] *Compliance with the opacity limit in 5.1.7.2.d. ensures compliance with 45CSR§7-3.1.*

[45CSR13, R13-2145, 4.1.2.] (Rotex Screens – 1S-5S)

5.1.7.3 **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-2145C (*i.e.*, CF #36 and CF #6) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2145, 4.1.3.; 45CSR§13-5.10.]

5.1.8. **Rotex Screen (SCREN 18) at the Wet Float Plant and Rotex Screen (SCREN 17) at the New Screen Tower**

- 5.1.8.1. The maximum hourly rate of sand to the two (2) new Rotex Screens (Equipment ID Nos.: 1s and 2s) (SCREN 17 & SCREN 18) shall not exceed 50 TPH per screen and 100 TPH total.
[45CSR13, R13-2423, A.1] [SCREN 17&18]
- 5.1.8.2. The maximum annual rate of sand to the two (2) new Rotex Screens (Equipment ID Nos.: 1s and 2s) (SCREN17 & SCREN 18) shall not exceed 438,000 TPY per screen and 876,000 TPY total.
[45CSR13, R13-2423, A.2] [SCREN 17&18]
- 5.1.8.3. The permittee shall operate the air pollution control device, the #9 Torit Cartridge Model No. 4DF32-155 Dust Collector (Emission Point ID No. Stack #9), for the #2 Rotex Screen (2S) as outlined in Permit Application R13-2423.
[45CSR13, R13-2423, A.3] [Stack #9]
- 5.1.8.4. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control devices, the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. Stack #9) for the #2 Rotex Screen (2S) and the #7 Torit Cartridge Model No. DFT4-32 Dust Collector (Emission Point ID No. Stack #7) for the #1 Rotex Screen (1S) shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter).
[45CSR13, R13-2423, A.4, A.5; 40 C.F.R. § 60.672; 45CSR16] [Stack #9 and Stack #7]

5.1.8.5. Particulate matter (PM) emissions shall not exceed the following hourly and annual emission limits:

Emission Point ID No.	Control Equipment	Emission Limitations	
		Hourly ¹ (PPH)	Annual ² (TPY)
Stack #7	#7 Torit Cartridge Model No. DFT-32 Dust Collector	4.1 ³	18.2 ³
Stack #9	#9 Torit Cartridge Model No. 4DF32-155 Pulse Type Dust Collector	1.4	6.0
⁽¹⁾ Based on a PM emission rate of 0.022 grains/dscf (0.05 grams/dscm) and a maximum dust collector gas flow of 7,212 dcfm for the #9 dust collector and 22,000 cfm for the #7 dust collector. ⁽²⁾ Based on 8,760 hours of operation per year. ⁽³⁾ Stack #7 limitations listed above apply at times when #1 Rotex Screen (1s) is in operation.			

[45CSR13, R13-2423, A.6] [Stack #9 and Stack #7]

5.1.9. Bulk bagging operation at the Wet Float Plant [45CSR13 Permit No. R13-2299]

5.1.9.1. The maximum hourly and annual processing rates of sand through the bulk sand bagger shall not exceed 30 TPH and 262,800 TPY, based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.1] [PACKR8]

5.1.9.2. The permittee shall operate the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C; Emission Point ID No. 1E - Stack #9), as outlined in Permit Application R13-2299.

[45CSR13, R13-2299, A.2] [Stack #9]

5.1.9.3. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. 1E - Stack #9), shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams/dry standard meter).

[45CSR13, R13-2299, A.3; 40 C.F.R. § 60.672; 45CSR16] [Stack #9]

5.1.9.4. Particulate matter (PM) emissions shall not exceed the following hourly and annual emission limits:

Emission Point ID No.	Control Equipment	Emission Limitation	
		Hourly (PPH)	Annual (TPY)
SCREW 31, PACKR 8 (1E) (Stack #9)	Torit Model Number 4D F32-155 Pulse Type Cartridge (Equipment ID No. 1C) (CF #9)	1.37 ^(a)	6.0 ^(b)

^(a) Based on a PM emission rate of 0.022 grains/dsc (0.05grams/dscm) and a maximum dust collector gas flow rate of 7,239 dcfm.

^(b) Based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.4] [Stack #9]

5.1.10. Microsizer #3 (MS-20) and Handling Equipment [45CSR13 Permit No. R13-2595]

5.1.10.1. The maximum quantity of material to be processed by the Microsizer #3 and Handling Equipment shall be limited to the following:

Equipment Source (Emission Source ID)	Maximum Hourly Rate (ton/hr)
Microsizer #3 (Stack #42)	25
Airslide 100 (Stack #41)	8
PNEU1 (Stack #42)	8

[45CSR13, R13-2595 (Condition 4.1.2.a.) and PD10-027] [Stacks #42 & 41]

5.1.10.2. Maximum particulate matter emissions to the atmosphere shall not exceed the following:

Emission Point ID#	Emission Source	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Stack #42	Microsizer #3	1.20	5.26
Stack #41	Airslide 100	0.15	0.66
Stack #42	PNEU1	0.40	1.75

[45CSR13, R13-2595 (Condition 4.1.2.b.) and PD10-027] [Stacks #42 & 41]

5.1.10.3. The following fugitive dust control measures as specified in Permit Application R13-2595 shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Emission Source ID#	Air Pollution Control Device	Air Pollution Control Device Efficiency
Microsizer #3	Torit DFT 3-6 Baghouse	99.9%
Airslide 100	Torit DFT2-4-155 Baghouse (2C)	99.9%
PNEU1	Torit DFT3-6	99.9%

[45CSR13, R13-2595 (Condition 4.1.2.c.) and PD10-027] [Baghouses CF #41 & CF #42; Stacks #42 & 41]

5.1.10.4. The stabilized static pressure loss across baghouse 2C and CF#42 shall remain between 0.5 to 6.0 inches of water. [45CSR13, R13-2595 (Condition 4.1.2.d.) and PD10-027] [Baghouses CF #41 & CF #42; Stacks #42 & 41]

5.1.10.5. Except during startup and shutdown, opacity from baghouse CF #41 and CF #42 shall not exceed 10 percent based on a six minute block average. In order to determine compliance with this limit the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for stacks #41 and #42. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using

procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading.

[45CSR13, R13-2595 (Condition 4.1.2.e.) and PD10-027] [Stacks #42 & 41]

5.1.10.6. PM emissions from Stack #41 and #42 shall not exhibit PM greater than 0.05 grains per dry standard cubic meter of exhaust.

[45CSR16; 40CFR§60.672(a) & Table 2 of Subpart OOO; 45CSR13, R13-2595 (Condition 4.1.2.f.)]

5.1.10.7. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.10.; 45CSR13, R13-2595 (Condition 4.1.3.)]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range:

Control device #	Control Device Description	Indicator Range for Pressure Drop (in)
#6	Donaldson Torit DFA-155	H₂O 0.5 - 6.0
#9	Donaldson Torit 4DFT-32-155	0.5 - 6.0
#25	Donaldson Torit DF-4DF-48	0.5 - 6.0
#28	Donaldson Torit DF-2DF-4	0.5 - 6.0
#29	Mikropul CFH-18-20-VB	0.5 - 6.0
#33	Donaldson Torit DF-T4-16	0.5 - 6.0
#34	Donaldson Torit DF-2DF-4	0.5 - 6.0
#36	Donaldson Torit DF-T2-8	0.5 - 6.0
#37	Mikropul CFH-8-20	0.5 - 6.0
#38	Mikropul CFH-18-20-VB	0.5 - 6.0
#41	Donaldson Torit DFT2-4-155	0.5 - 6.0
#42	Donaldson Torit DFT3-6	0.5 - 6.0

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41, 42]

5.1.12. Bagging and Palletizing Line System (PACKR1) [45CSR13 Permit No. R13-0029]

5.1.12.1. The following conditions and requirements are specific to the replacement Bagging and Palletizing Line system (PACKR1) which was installed in 2018, is controlled by cartridge filter dust collector CF#40 (Donaldson Torit Model No. DF-T2-8), and has Stack #40 as its Emission Point ID No.:

- a. The maximum hourly and annual rate of sand processed through the replacement Bagging and Palletizing Line system (PACKR1) shall not exceed 36 ton per hour (ton/hr) and 315,360 ton per year (ton/yr) based on operating 8,760 hr/yr.
- b. Visible emissions from Stack #40 shall not exceed 7% opacity based on a six-minute average. An initial performance test is required. **[45CSR16; 40 CFR §60.672(a) & Table 2 of Subpart OOO]**
- c. Particulate matter (PM) emissions from the cartridge filter dust collector (CF #40) shall not exceed 0.032 g/dscm (0.14gr/dscf). An initial performance test is required. **[45CSR16; 40 CFR §60.672(a) & Table 2 of Subpart OOO]**
- d. Fugitive emissions from the replacement Bagging and Palletizing Line system (PACKR1) shall not exceed 7% opacity based on a six-minute average. An initial performance test and a repeat performance test within 5 years of the initial performance test is required. **[45CSR16; 40 CFR §60.672(b) & Table 3 of Subpart OOO]**
- e. PM emissions from the cartridge filter dust collector (CF #40) shall not exceed the following hourly and annual emission limits:

Emission Point ID No.	Control Equipment	Emissions Limitations ¹	
		(lb/hr)	(ton/yr) ²
Stack #40	Cartridge Filter Dust Collector #40 (CF #40, Donaldson Torit Model No. DF-T2-8)	0.66	2.89

⁽¹⁾ Based on a PM emission rate of 0.032 grams/dscm (0.14 grains/dscf) and a maximum dust collector gas flow rate of 5,500 dcfm for the #40 dust collector.

⁽²⁾ Based on 8,760 hours of operation per year.

[45CSR13, R13-0029, 4.1.1.]

5.1.12.2. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 (conditions 3.1.9., 3.1.10., 3.1.11., 3.1.13., and 3.1.14.) 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.; 45CSR13, R13-0029, 4.1.2.i.]

5.1.12.3. The permitted facility shall comply with all applicable provisions of 40 CFR 60 Subpart OOO. Pertinent sections applicable to this operation include, but are not limited to:

- a. Performance tests must be conducted as required by §60.8 and in accordance with test methods and procedures given in §60.675. Refer to Section 3.5.3 of this permit for addresses to send written notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA.

- b. Standards governing particulate matter emissions are given in §60.672.
- c. Reporting and record keeping requirements are given in §60.676.

[45CSR13, R13-0029, 4.1.3.]

5.1.12.4. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

- a. At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance. **[45CSR§13-6.1]**
- b. The Secretary may suspend or revoke a permit if, after six (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit. **[45CSR§13-10.2]**
- c. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W.Va. Code § 22-5-5 to show cause why the permit should not be suspended, modified or revoked. **[45CSR§13-10.3]**

[45CSR13, R13-0029, 4.1.4.]

5.1.12.5. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR§13-5.10.; 45CSR13, R13-0029, 4.1.5.]**

5.1.13. Air Classifier (AIRSE25) and Cristobalite processing operations [45CSR13 Permit No. R13-2595]

5.1.13.1. The following conditions and requirements are specific to the Air Classifier (AIRSE25) and Cristobalite processing operations:

- a. The fugitive PM emissions due to the transferring of material from the feed bin (TANK25) to the air classifier (AIRSE25) using the two feed conveyor belts (FEEDB25 & FEEDB26) shall be equipped with a capture and removal system (PM control device). Such PM control device shall utilize the fabric filter control technology or similar technology that has a design removal efficiency of 99.9% or better for PM. **[45CSR§7-5.1]**
- b. Visible emissions from Stacks (#15, #45, #46 & #47) shall not be greater than 7% opacity on a six minute average. **[45CSR16; 40CFR§60.672(a) & Table 2 of Subpart OOO]**

- c. The fugitive PM emissions due to the transferring of material from the feed bin (TANK25) to Mill #6 using the two feed conveyor belts (FEEDB25 & FEEDB26) shall be equipped with a capture and removal system (PM control device). Such PM control device shall utilize the fabric filter control technology or similar technology that has a design removal efficiency of 99.9% or better for PM.
[45CSR§7-5.1]
- d. The following fugitive dust control measures as specified in Permit Application R13-2595B shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Emission Source ID#	Air Pollution Control Device ID#	Air Pollution Control Device	Air Pollution Control Device Efficiency
ELEV25	Stack #15	Cellulosic Cartridge Filter	99.9%
FEEDB25			
FEEDB26			
SCREN25			
BIN25			
PNEU25			
HOPPR25	Stack #46	Cellulosic Cartridge Filter	99.9%
TANK25	Stack #47	Cellulosic Cartridge Filter	99.9%
AIRSE25	Stack #45	Ecutech Cartridge Filter	99.9%

- e. Visible emissions from Stack #47 shall not be greater than 7% opacity on a six minute average.
[45CSR16; 40CFR§60.672(a) & Table 2 of Subpart OOO]
- f. PM emissions from Stacks (#15 & #45) shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust.
[45CSR16; 40CFR§60.672(a) & Table 2 of Subpart OOO]
- g. Fugitive visible emissions from feed conveyor belts (FEEDB25 & FEEDB26) shall not be greater than 7% opacity on a six minute average.
[45CSR16; 40CFR§60.672(b) & Table 3 of Subpart OOO]

[45CSR13, R13-2595, 4.1.1.]

5.1.13.2. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.10.; 45CSR13, R13-2595, 4.1.3.]

5.1.14. Limestone processing operations [45CSR13 Permit No. R13-3535]

5.1.14.1. The following conditions and requirements are specific to the Limestone processing operations:

a. In accordance with the information filed in Permit Application R13-3535, the equipment/processes identified under permit condition 1.1. Emission Units of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities and/or throughputs, and shall use the specified control devices.

[45CSR13, R13-3535, 4.1.1.]

b. The maximum transfer rate of material through the crushers and screens shall not exceed hourly and annual throughput rates identified in the table under Section 1.1. Emission Units of this permit. Said limits shall be based on a 12-month rolling total.

[45CSR13, R13-3535, 4.1.2.]

5.1.14.2. The Limestone processing operations are subject to the applicable sections of 45CSR7 which include, but are not limited to, the following:

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

[45CSR§7-4.1.]

b. 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. The permitted facility shall comply with all applicable requirements of 45CSR§7, with the exception of any more stringent limitations set forth in Section 4.1. of this permit.

[45CSR§7-5.1.]

[45CSR13, R13-3535, 4.1.3.]

5.1.14.3. The Limestone processing operations are subject to the applicable sections of 40 CFR 60 Subpart OOO which include, but are not limited to, the following:

a. Fugitive visible emissions from screening operations (SCREN1T thru SCREN3T) and transfer points on belt conveyors (SCRENBC1T thru 7T, STACKBC1T, STACKBC2T) shall not be greater than 7% opacity on a six minute average. An initial performance test and a repeat performance test within 5 years of the initial performance test is required.

[45CSR16; 40CFR§60.672(b) & Table 3 of Subpart OOO]

b. Fugitive visible emissions from crushers at which a capture system is not used (CRUSH1T thru SCREN3T) shall not be greater than 12% opacity on a six minute average. An initial performance test and a repeat performance test within 5 years of the initial performance test is required.

[45CSR16; 40CFR§60.672(b) & Table 3 of Subpart OOO]

[45CSR13, R13-3535, 4.1.4.]

5.1.13.4. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[\[45CSR§13-5.10.; 45CSR13, R13-3535, 4.1.6.\]](#)

5.2. Monitoring Requirements

- 5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1.
[45CSR§30-5.1c]
- 5.2.2. The permittee shall monitor and maintain records of daily observations of pressure drop across baghouses CF#41 and CF#42.
[45CSR13, R13-2595, 4.2.7. and PD10-027] [Baghouses CF#41 & CF#42; Stacks #41 & 42]
- 5.2.3. For the purpose of determining compliance with the process rate limitations set forth in 5.1.10.1. and 5.1.12.1.a., the permittee shall maintain monthly and annual records on the processing rate of sand through the replacement Bagging and Palletizing Line System (PACKR1), #3 microsizer, Airslide 100 and PNEU1. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS).
[45CSR13, R13-2595, 4.2.4., R13-0029, 4.2.4., and PD10-027] [PACKR1, #3 Microsizer, Airslide 100 and PNEU1]
- 5.2.4. Maintenance records for the air pollution control devices listed in 5.1.10.3. and 5.1.12.1. shall be maintained on site for a period of five (5) years. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:
- The equipment involved in the malfunction and the associated cause.
 - Steps taken to correct the malfunction.
 - The steps taken to minimize the emissions during the malfunction.
 - The duration of the malfunction.
 - The increase in emissions during the malfunction.
 - Steps taken to prevent a similar malfunction in the future.
- [45CSR13, R13-2595, 4.2.6., R13-0029, 4.2.6. and PD10-027] [Baghouses CF #41 & CF #42, CF #40; Stacks #40, 41, & 42]**
- 5.2.5. Once a quarter (every three months), the permittee shall conduct 30-minute visible emission inspections using U.S. EPA Method 22 (Appendix A-7 of Part 60) of Stacks #6, #15, #40, #45, and #47. The Method 22 observations shall be conducted while the dust collector 1C (dust collector for Stack #6) and the dust collector (for Stacks #15, #40, #45, and #47) is operating. Such monitoring is deemed satisfactory if no visible emissions are detected during the Method 22 observations. If any visible emissions are detected, then the permittee must initiate corrective actions within twenty-four hours of the observation to bring the dust collector to normal operation. The date and time of every Method 22 observation inspection shall be recorded in accordance with Condition 3.4.2. and in the logbook in accordance with 40 C.F.R. §60.676(b). These records shall include any corrective actions taken. The permittee may elect to establish a different satisfactory (success) level for the visible emissions observations inspections by conducting PM performance test according to 40 C.F.R. §60.675(b) simultaneously with a Method 22 observation to determine what constitutes normal visible emission from Stack #6 when it is in compliance with the PM limit of Condition 5.1.7.1.c., from stack #40 when it is in compliance with the PM limit in Condition 5.1.12.1.c., and from Stacks #15, #45, and #47 when it is in compliance with the PM limits on conditions 4.1.1.e and 4.1.1.f. These revised visible emissions satisfactory (success) level must be incorporated into the Facility's Title V Operating Permit.

[45CSR13, R13-2145, 4.2.1., R13-0029, 4.2.2., R13-2595, 4.2.2.; 40 C.F.R. §60.674(c); 45CSR16]

5.2.6. For the purpose of determining compliance with the emission limits as set forth in 5.1.10.2 and 5.1.12.1.e, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-0029, 4.2.5., R13-2595. 4.2.5.]

5.2.7. To determine compliance with 5.1.12.1.e, the permittee shall monitor and maintain records of daily observations of delta P across cartridge filter dust collector, CF #40. These records shall be maintained on-site for a period of five (5) years and certified records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR13, R13-0029, 4.2.7.]

5.2.8. Visible emissions shall be observed visually at least each calendar week during periods of facility operation for a sufficient time interval to determine if the unit (Stacks #15, #45, #46, and #47) has any visible emissions using 40CFR60 Appendix A, Method 22. If visible emissions are observed during these weekly observations, or at any other time, that appear to exceed the allowable visible emission requirement, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than 24 hours from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition 5.2.8 if the visible emissions condition is corrected in a timely manner; the Process Source Operation is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.

[45CSR13, R13-2595, 4.2.1.]

5.2.9. For the purpose of determining compliance with the opacity limits of 40 CFR 60 Subpart OOO, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

a. The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

b. Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

[45CSR13, R13-3535, 4.2.1.]

5.2.10. The permittee shall install instrumentation to measure both volumetric flow rate and water pressure as supplied to the facility's water spray bars on a daily basis. At the beginning and end of each operating day, the water pressure and ambient temperature shall be recorded. At the end of each operating day, the tonnage of rock processed, the amount of water (measured in gallons) utilized that day, the number of hours of operation, and a description of the day's weather conditions shall be recorded. Such records shall be maintained in accordance with Section 3.4.2. of this permit.

[45CSR13, R13-3535, 4.2.2.]

5.2.11. The permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). Such records shall be maintained in accordance with Section 3.4.2. of this permit.

[45CSR13, R13-3535, 4.2.3.; 40CFR§§60.674(b)]

5.3. Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

5.3.2. For demonstrating initial compliance with the visible emission standards of 5.1.7.1.b., 5.1.7.1.d., 5.1.12.1.b., 5.1.12.1.d., 5.1.13.1.e., ~~and~~ 5.1.13.1.g., [5.1.14.3.a](#) and [5.1.14.3.b](#), the permittee shall conduct performance testing to determine the visible emissions from the point and fugitive emission sources associated with Q-Rok loading at the facility, which includes Stack #6, Bucket Elevators (BE01 & BE02) and the associated load out spout, the replacement Bagging and Palletizing Line system (PACKR1), ~~and~~ the Cristobalite processing (Stack #47, FEEDB25, and FEEDB26), [and the Limestone Processing Operations](#). Such testing shall be conducted in accordance with Method 9 of Appendix A-4 of 40 CFR 60, and the procedures in 40 C.F.R. §60.11. and Condition 3.3.1 of this permit and the following additions:

- a. The minimum distance between the observer and the emission source shall be 15 feet. The observer shall, when possible, select a position that minimizes interference from other fugitive sources (e.g. road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR 60, Section 2.1.) must be followed.
- b. The duration of the Method 9 observations for demonstrating compliance with the fugitive emission limit must be 30 minutes (five 6-minute averages). Compliance with the limits in 5.1.7.1.d., 5.1.12.1.d., ~~and~~ 5.1.13.1.g. [5.1.14.3.a](#) and [5.1.14.3.b](#) shall be based on the average of five 6-minute averages.
- c. If a building/structure encloses the replacement Bagging and Palletizing Line system (PACKR1), Bucket Elevators BE01 and BE02 and/or load out spout with the DSH system, and the Cristobalite process, the permittee shall conduct initial Method 9 observation of the building/structure to determine the compliance with fugitive emission limits in 5.1.7.1.d., 5.1.12.1.d., and 5.1.13.1.g. according to 40 C.F.R. 60 Subpart OOO and 40 C.F.R. §60.11. Such source must be operating while conducting the observations.

[40 C.F.R. §§60.675(c) and (d); 45CSR16; 45CSR13, R13-2145, 4.3.1., R13-0029, 4.3.1., R13-2595, 4.3.1., [R13-3535, 4.3.1.](#)]

The permittee may use the following as alternatives to the reference methods and procedures listed in the above:

- a. If visible emissions from two or more facilities (affected sources) continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 - i. Use for the combined emission stream the highest fugitive opacity standard application to any of the individual affected contributing to the emission stream.
 - ii. Separate the emissions so that the opacity of emissions from each affected can be read.
- b. A single visible emission observer may conduct visible emissions observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:
 - i. No more than three emission points may be read concurrently.
 - ii. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
 - iii. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.
- c. The permittee may reduce the 30-day advance notification of performance test in 40 C.F.R. §§60.7(a)(6), 60.8(d) and 15-day notification of Condition 3.3.1.c. to a 7-day advance notification.

[40 C.F.R. §§60.675(e) and (g); 45CSR16; 45CSR13, R13-2145, 4.3.1., R13-0029, 4.3.1., R13-2595, 4.3.1., [R13-3535, 4.3.1.](#)]

5.3.3. For demonstrating initial compliance with the PM emission limit of 5.1.7.1.c., 5.1.12.1.c., and 5.1.13.1.f, the permittee shall conduct performance testing to determine the PM concentration rate from Stacks #6, #15, #40, and #45. Such testing shall be conducted using Method 5(Appendix A-3 of Part 60), Method 17 ((Appendix A-6) of Part 60), or Method 5I (Appendix A-3 of Part 60). If the exhaust velocity of Stack #6, #15, #40, or #45 is too low to measure accurately using the type S pilot tube as specified in EPA Method 2 (Appendix A-1 of Part 60), then the permittee may use the procedure outlined in 40 C.F.R. §60.675(e)(4). **[45CSR16; 40CFR§§60.675(b), (e)(3), and (e)(4); 45CSR13, R13-2145, 4.3.2., R13-0029, 4.3.2., R13-2595, 4.3.2.]**

5.3.4. Initial performance testing will be performed as follows:

- a. The initial performance testing as required in this section (condition 5.3.2. through 5.3.4.) shall be conducted within 60 days after achieving the maximum production rate of 150 tons per hour through the load out with the DSH system, but no later than 180 days after initial start-up of the load out with the DSH system.
[45CSR16; 40 C.F.R. §§60.672(a) and (b); 45CSR16; 45CSR13, R13-2145, 4.3.3.]

- b. The initial performance testing as required in this section (condition 5.3.2. through 5.3.4.) shall be conduct within 60 days after achieving the maximum production rate of 25 tons per hour with the Cristobalite system, but no later than 180 days after initial start-up of either system.
[45CSR16; 40CFR§§60.672(a) and (b); 45CSR13, R13-2595, 4.3.3.]
- c. The initial performance testing as required in this section (conditions 5.3.2. through 5.3.4.) shall be conducted within 60 days after achieving the maximum production rate at which the replacement Bagging and Palletizing Line system (PACKR1) [and Limestone Processing Operations](#) will be operated, but no later than 180 days after initial start-up.
[45CSR16; 40CFR§§60.672(a) and (b)]

The design capacity of the replacement Bagging and Palletizing Line system (PACKR1) is specified in this permit in the Section 1.0 Emission Units Table and Condition 5.1.12.1.a.
[45CSR13, R13-0029, 4.3.3.]

[The design capacity of the Limestone Processing Operations is specified in this permit in the table in Section 1.0 Emission Units.](#)
[45CSR13, R13-3535, 4.3.3.]

- 5.3.5. The permittee shall repeat the performance testing as prescribed in Condition 5.3.2. for compliance with the fugitive emission standards of Conditions 5.1.7.1.d., 5.1.12.1.d., **and** 5.1.13.1.g., [5.1.14.3.a and 5.1.14.3.b](#) within 5 years from the previous performance test demonstrating compliance.
[40 C.F.R. §60.672(b) and Table 3 of 40 C.F.R. 60 Subpart OOO; 45CSR16; 45CSR13, R13-2145, 4.3.4., R13-0029, 4.3.4., R13-2595, 4.3.4., [R13-3535, 4.3.1.](#)]
- 5.3.6. With regard to performance tests required by the WV Division of Environmental Protection, Division of Air Quality (DAQ), including those performance tests required under 40 CFR 60 Subpart OOO, the permittee shall submit to the Director of the DAQ a test protocol detailing the proposed test methods, date, and time testing is to take place, sampling locations, and any other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Performance test results shall be submitted to the DAQ within 60 days of completing said tests.
[45CSR13, R13-0029, 4.2.3., R13-2595, 4.2.3.]
- [5.3.7. During such testing, the permittee shall monitor and record the water pressure, flow rate of the water sprays, and the hourly throughput or process rate of the piece of equipment at which the observation is occurring. Such records shall include the water pressure and flow rate at the beginning and the at end of the last observation for the actual operation day. Such records shall be included in with the test results and maintained in accordance with Section 3.4.2. of this permit.](#)
[45CSR13, R13-3535, 4.3.1.d.]

5.4. Recordkeeping Requirements

- 5.4.1. For the purpose of determining compliance with the process rate limitation set forth in Sections 5.1.8.1 and 5.1.8.2, the permittee shall maintain monthly and annual records on the processing rate of sand to the two (2) new Rotex Screens (located at the Float Plant). Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS).
[45CSR13, R13-2423, B.4] [SCREN17 & 18]

- 5.4.2. For the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C-CF#9):
- a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request.
 - b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of 5 years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:
 - The cause of malfunction.
 - Steps taken to:
 - correct the malfunction.
 - minimize emissions during malfunction.
 - The duration of the malfunction in hours.
 - The estimated increase in emissions during the malfunction.
 - Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2423, B.5] [CF#9]
- 5.4.3. For the purpose of determining compliance with the process rate limitation set forth in Section 5.1.9.1, the permittee shall maintain monthly and annual records on the processing rate of sand to the bulk sand bagger (located at the Float Plant). Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS).
[45CSR13, R13-2299, B.4] [PACKR8]
- 5.4.4. Maintenance records for the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No.: 1C-CF #9; Emission Point ID No.: 1E-Stack #9), must be maintained. Records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2299, B.5] [Stack#9]
- 5.4.5. The permittee shall maintain monthly and annual records on the processing rate of sand to the five (5) Rotex Screens. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR13, R13-2145, 4.2.2.] (Rotex Screens 1S – 5S)
- 5.4.6. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of the current version of R13-2145, R13-2595, **and** R13-0029, [and R13-3535](#), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2145, 4.4.2.] (CF #36, CF #6)
[45CSR13, R13-0029, 4.4.2.] (PACKR1)
[45CSR13, R13-2595, 4.4.2.] (CF #41, CF #42, CF #15, CF #45, CF #46, CF #47)
[\[45CSR13, R13-3535, 4.4.2.\] \(Limestone Processing Operations\)](#)
- 5.4.7. For the purpose of determining compliance with the emission limits as set forth in Sections 5.1.6.1 and 5.1.6.2, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2015, B.1] [Stack #25]

5.4.8. For the purpose of determining compliance with the process weight rate limitations set forth in Section 5.1.6.3 the permittee shall maintain monthly and annual records on the processing rate of sand to the Trash Vibrating Screen. Compliance with the monthly and annual process weight rate limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the process weight rate at any given time for the previous twelve (12) consecutive months. Said records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS)
[45CSR13, R13-2015, B.2] [SCREN16]

5.4.9. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.4, the permittee shall maintain certified annual records that contain at a minimum the following:

Hours of Operation when the Trash Vibrating Screen is operating without the required control device (Cartridge Filter).

Said records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2015, B.3] [CF#25]

5.4.10. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.5, the permittee shall meet the following requirements for the control device CF#25:

a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.

b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

1. The cause of malfunction.
2. Steps taken to:
 - correct the malfunction
 - minimize emissions during malfunction
3. The duration of the malfunction in hours.
4. The estimated increase in emissions during the malfunction.
5. Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2015, B.4] [CF#25]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2.

[45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CFs #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41, 42]

- 5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CFs #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41, 42]

- 5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CFs #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41, 42]

- 5.4.15. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of the current version of R13-2145, R13-2595, and R13-0029, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[40 C.F.R. §60.676(b)(1); 45CSR16; 45CSR13, R13-2145, 4.4.3.] (CF #36, CF #6)

[45CSR13, R13-0029, 4.4.3.] (PACKR1)

[45CSR13, R13-2595, 4.4.3.] (CF#41, CF#42, CF#15, CF#45, CF#46, CF#47)

[45CSR13, R13-3535, 4.4.3.] ([Limestone Processing Operations](#))

- 5.4.16. For the purpose of determining compliance with maximum throughput and operation limits set forth in Section 5.1.14.1.b. of this permit, the applicant shall maintain certified daily and monthly records. An example form is included as Appendix C to permit R13-3535. Compliance will be determined on a 12-

month rolling total. These records shall be maintained on-site for a period of five (5) years and be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR13, R13-3535, 4.4.4.] (Limestone Processing Operations)

5.4.17. The permittee shall maintain records of all monitoring data required by Section 5.2.9. of this permit documenting the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A. Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

[45CSR13, R13-3535, 4.4.5.] (Limestone Processing Operations)

5.5. Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.*

- (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.
- (2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) 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
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CFs #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41, 42]

5.5.3. The Director shall be notified of the initial start-up of Bucket Elevators BE01 & BE02, and the load out spout with the DSH system, PACKR1, and the equipment listed in R13-2595 within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available. This notification supersedes the notification requirements of Condition 2.18. of the current version of R13-2145, R13-0029, and R13-2595.

[45CSR13, R13-2145, 4.5.1., R13-2595, 4.5.1.; 40 C.F.R. §§60.676(i)(1) and (k); 45CSR16]

[45CSR13, R13-0029, 4.5.1.] (PACKR1)

5.5.4. The permittee shall report the results of any test conducted as required in conditions 5.3.2., 5.3.3., 5.3.4., 5.3.5., and 5.3.6. of this permit to the Director within 60 days after completing such testing.

[45CSR13, R13-2145, 4.5.2., R13-2595, 4.5.2.; 40 C.F.R. §§60.676(f) and (k); 45CSR16]

[45CSR13, R13-0029, 4.5.2.] (PACKR1)

[\[45CSR13, R13-3535, 4.5.1.\] \(Limestone Processing Operations\)](#)

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

[40CFR§§60.676(f) and (k); 45CSR16; 45CSR13, R13-3535, 4.5.2.] (Limestone Processing Operations)

5.6. Compliance Plan

5.6.1. N/A

6.0 Source-Specific Requirements [Non- NSPS Sources]

- a) **Primary Crushing Plant (Stack #1).**
- b) **Secondary Crushing Plant (Stack #2).**
- c) **Wet Processing Operations Plant (Rod Mill Building) except CONV54, MILL8, SCREN16, SCREN 1**
- d) **Screening and Unground Sand Processing except SCREN 7-9, 14-15, BE01, BE02, LS01 (Stacks #7, 27 & 40)**
- e) **Milling Process (Stacks #10, 11, 12 & 39).**
- f) **Classification (10/15/30/40 Micron) (Includes only #1 and #2 Pump Feed Bins and Tailing Bins) (Stacks #11 & 12)**
- g) **5 Micron Classification (Includes only PEMCO Elevator, PACKR 3, 4 (Stacks #13 & 20)**
- h) **Wet Float Plant except SCREN 17 & 18, Elev 20, Packr 8**
- i) **Storage Structures except Supersil storage silos #1 to #4, Minusil Storage Silos #5 to #7 (Stacks #7, 13 & 27).**

6.1. Limitations and Standards

6.1.1. The emission limitations are as shown in the table below:

Emission Unit	Emission Point ID	Allowable PM Stack Emissions (Type 'a' Source Operation) (PPH)
CRUSH 2, CONV2, CONV3	Stack #1 (CF #1)	50
CRUSH 3	Stack #2 (Wsc#2)	50
SCREN10-13, SCREN22-23 & SCREN4, ELEV1, ELEV2, ELEV3, CONV 31, CONV33, Tanks 7, 8, 13, 14, 15,16,17 & 18	Stack #7 (CF #7)	43
CONV 51, Pulverizer tank #19, Pulverizer tank #20, Tanks #9-#12 vents and loadouts, Steel Tank #21 Vent and Loadout, SPOUT 1 and 2	Stack #27 (CF #2)	43
SCREW3, #1 Mill Feed Bin, SCREW6, AIRSD7, ELEV 6, ELEV 7, #2 Mill Feed bin, FEEDB1 and FEEDB2, MILL2, MILL3, SCREW5	Stack #10	37
Elev 14	Stack #39	40
#5 Mill Feed Bin, FEEDB5, ELEV10, #6 Mill Feed Bin, FEEDB6, AIRSD3, ELEV11, BIN7, #1 AND #2 PUMPS, TAILINGS BINS, MILL6, ELEV15, BIN2, MILL7	Stack #12	37
PEMCO Elev (ELEV 23), CGS FCP Tank VENT, and PEMCO tank VENT, SPOUT6	Stack #13	47
Packr 3 & 4	Stack #20	28
SCREW4 (3-4 Screw Conveyor), #3 Mill Feed Bin, #4 Mill Feed Bin, SCREW7, AIRSD8, ELEV8, ELEV9, FEEDB3, FEEDB4, SCREW5, MILL4, MILL5	Stack #11	37

[45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, Wsc#2]

- 6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range:

Control device #	Control Device Description	Indicator Range for Pressure Drop (in H ₂ O)
#1	Donaldson Torit DF-T4-32	0.5 - 6.0
#7	Donaldson Torit DFT-32-SH)	0.5 - 6.0
#10	Mikropul CFH 40T-20-B	0.5 - 6.0
#11	Mikropul CFH 40T-20-B	0.5 - 6.0
#12	Mikropul CFH 40T-20-B	0.5 - 6.0
#13	Donaldson Torit DF-T3-24	0.5 - 6.0
#20	Donaldson Torit DF-T4-16	0.5 - 6.0
#27	Donaldson Torit DF-T2-8	0.5 - 6.0
#39	Mikropul CFH 8-20-V	0.5 - 6.0

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39]

- 6.1.3. The following scrubber pressure drop range obtained from stack test and historical data is an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range:

Control device #	Control Device Description	Indicator Range for Pressure Drop (in H ₂ O)
Wsc#2	Wet Scrubber	1.5 - 7.0

According to the CAM plan submitted, the pressure drop across the wet scrubber shall be measured continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Wsc#2]

6.2. Monitoring Requirements

- 6.2.1. Visible emissions evaluations will be conducted as specified in facility-wide requirements 3.2.1. [45CSR§30-5.1c]
- 6.2.2. The wet scrubber Wsc#2 shall be observed daily during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions are observed, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than one week from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition Section 6.2.2 if the visible emissions condition is corrected in a timely manner; the scrubber is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§30-5.1c] [Wsc#2]

6.3. Testing Requirements

N/A

6.4. Recordkeeping Requirements

- 6.4.1 Recordkeeping will be conducted as specified in facility-wide requirements 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]
- 6.4.2. The monitoring required in section 6.2.2 shall be recorded. [45CSR§30-5.1c]
- 6.4.3. The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]
- 6.4.4. Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]
- 6.4.5. *General recordkeeping requirements.*
- (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
 - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

6.5. Reporting Requirements

- 6.5.1 Reporting will be conducted as specified in facility-wide requirements 3.5.6 and 3.5.8. [45CSR§30-5.1c]
- 6.5.2. *General reporting requirements.*
- (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.
 - (2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (ii) 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
- (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

6.6. Compliance Plan

6.6.1. N/A

7.0 Source-Specific Requirements: Mobile Conveyor (MOB-CONV), Bucket Elevator (BE-03), Cristobalite Silo (C Silo), and Damp Conveyor (CONV 55)

7.1. Limitations and Standards

- 7.1.1. The following conditions and requirements are specific to the Mobile Conveyor (MOB-CONV), Damp Conveyor (CONV 55), Bucket Elevator (BE 03), and the Cristobalite Silo (C Silo):

The permittee shall meet the following fugitive emissions limit for Bucket Elevator (BE-03) and the transfer points on Mobile Conveyor (MOB-CONV), Damp Conveyor (CONV 55), Cristobalite Silo (C Silo), enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671): 7 percent opacity
[45CSR16, 40CFR §60.672(b) and Table 3 to Subpart OOO of 40CFR60; 45CSR13, R13-2145, 5.1.1. and 6.1.1.]

7.2. Monitoring Requirements

- 7.2.1. The permittee shall maintain monthly and annual records on the processing rate of sand to the mobile conveyor, bucket elevator, and damp conveyor. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2 of this permit.
[45CSR13, R13-2145, 5.2.1. and 6.2.1.]
- 7.2.2. The permittee shall maintain records on the specific location of the Mobile Conveyor (MOB-CONV). Upon initial startup, these records shall include the date moved and a plot plan marking the location for each move. Such records shall be maintained in accordance with Condition 3.4.2 of this permit.
[45CSR13, R13-2145, 5.2.2.]

7.3. Testing Requirements

- 7.3.1. For demonstrating initial compliance with the visible emission limit of 7.1.1, the permittee shall demonstrate compliance by conducting:
- An initial performance test according to 40 CFR §60.11 and 40 CFR §60.675; and
 - A repeat performance test according to 40 CFR §60.11 and 40 CFR §60.675 within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays.
[45CSR16, Table 3 to Subpart OOO of 40 CFR 60; 45CSR13, R13-2145, 5.3.1. and 6.3.1.]
- 7.3.2. Method 9 of Appendix A 4 of 40 CFR 60 and the procedures in 40 CFR §60.11 will be used to determine opacity, with the following additions:
- The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet);
 - The observer shall, when possible, select a position that minimizes interference from other fugitive emissions sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A 4 of 40 CFR 60, Section 2.1) must be followed.
[45CSR16, 40 CFR §§60.675(b)(2) and (c)(1); 45CSR13, R13-2145, 5.3.2. and 6.3.2.]

- 7.3.3. When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR §§60.672(b) or 60.672(e)(1), the duration of the Method 9 (40 CFR 60, Appendix A-4) observations must be 30 minutes (five 6 minute averages). Compliance with the applicable fugitive emission limits in 7.1.1. must be based on the average of the five 6 minute averages.
[45CSR16, 40 CFR §60.675(c)(3); 45CSR13, R13-2145, 5.3.3. and 6.3.3.]

7.4. Recordkeeping Requirements

- 7.4.1. The permittee shall maintain a record of each periodic inspection required under 40 CFR §60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). Keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request.
[45CSR16, 40 CFR §60.676(b)(1), 45CSR13, R13-2145, 5.4.1. and 6.4.1.]
- 7.4.2. The permittee shall maintain a record of each visible emissions observation, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or 45CSR7A, whichever is appropriate. The record will 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 will 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.
[45CSR7A, 45CSR13, R13-2145, 5.4.2. and 6.4.2.]
- 7.4.3. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
[45CSR13, R13-2145, 5.4.3. and 6.4.3.]

7.5. Reporting Requirements

- 7.5.1. The Director shall be notified of the initial start-up of Mobile conveyor (MOB-CONV), Damp Conveyor (CONV 55) and Bucket Elevator (BE 03) within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available.
[45CSR16, 40 CFR §60.676(i), 45CSR13, R13-2145, 5.5.1. and 6.5.1.]
- 7.5.2. The permittee shall report the results of any test conducted as required in Section 7.3. of this permit to the Director within 60 days after completing such testing.
[45CSR16, 40 CFR §60.676(f), 45CSR13, R13-2145, 5.5.2. and 6.5.2.]

7.6. Compliance Plan

- 7.6.1. ~~None~~ N/A

Fact Sheet



**For *Draft /Proposed* Renewal Permitting Action Under 45CSR30 and
Title V of the Clean Air Act**

Permit Number: **R30-06500001-2019**
Applications Received: **October 23, 2023 (renewal)**
Plant Identification Number: **03-54-065-00001**
Permittee: **U. S. Silica Company**
Facility Name: **Berkeley Springs Plant**
Mailing Address: **P.O. Box 187; Berkeley Springs, WV 25411**

Physical Location: Berkeley Springs, Morgan County, West Virginia
UTM Coordinates: 739.59 km Easting • 4,393.48 km Northing • Zone 17
Directions: Off of Route 522 approximately 3 miles north of Berkeley Springs

Facility Description

Sandstone mining, quarrying, and processing facility. SIC Code - 1446.

On September 20, 2021, the WV DEP DAQ received a minor modification application for this facility: R30-06500001-2010 (MM01). This application was for the addition of a Limestone Processing Operation.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2023 Actual Emissions
Carbon Monoxide (CO)	13.75	1.52
Nitrogen Oxides (NO _x)	96.35	1.80
Particulate Matter (PM _{2.5}) ¹	114.30	8.03
Particulate Matter (PM ₁₀) ¹	239.20	13.85
Total Particulate Matter (TSP)	534.96	24.03
Sulfur Dioxide (SO ₂)	267.00	0.01
Volatile Organic Compounds (VOC)	1.29	0.10

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2023 Actual Emissions
Total HAPs	2.32	<0.10

Some of the above HAPs may be counted as PM or VOCs.

¹PM_{2.5} and PM₁₀ are components of TSP.

Title V Program Applicability Basis

This facility has the potential to emit 239.20 TPY of PM₁₀ and 267.00 TPY of SO₂. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, U. S. Silica Company is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR7	Control of PM from Manufacturing Sources
	45CSR10	Sulfur Dioxide Emissions
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction/modification permits
	45CSR16	NSPS Requirement
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. 60 Subpart OOO	NSPS for Non-metallic mineral processing
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 64	Compliance Assurance Monitoring (CAM)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only: 45CSR4 No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-3535	November 22, 2021	
R13-2595B	April 20, 2016	PD10-027
R13-0715F	December 11, 2003	
R13-0750	June 14, 1984	
R13-1970	August 13, 1997	
R13-0991	April 12, 1988	
R13-1917	December 22, 1995	
R13-2015C	November 20, 2009	
R13-2145G	January 7, 2019	
R13-2423B-	July 24, 2017	
R13-2299A	August 29, 2003	
R13-0029A	November 19, 2018	
		PD11-037
		PD12-007
		PD05-008

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

Changes associated with minor modification MM01:

- **Condition 1.1.** – The Emission Units table was updated to add the equipment from the Limestone Processing Operations.
- **Condition 1.2** – The active R13 permit R13-3535 was added.
- **Conditions 3.1.9. and 3.1.11., 3.1.13., 3.1.14., 3.4.1.** – A reference to Permit R13-3535 was added in the citation.
- **Condition 5.0.** – Added an entry for the Limestone Processing Operations.
- **Condition 5.1.1.2.** – A reference to the equipment for the Limestone Processing Operations from NSR Permit R13-3535 was added in the citation.
- **New Condition 5.1.14.** – Added this section for the Limestone Processing Operations from NSR Permit R13-3535.
- **New Conditions 5.2.9., 5.2.10. and 5.2.11.** – Added these conditions for the Limestone Processing Operations from NSR Permit R13-3535.
- **Conditions 5.3.2., 5.3.2.b., 5.3.4., ~~5.3.5., 5.4.6., and 5.4.15.~~** – Added references for the Limestone Processing Operations from NSR Permit R13-3535 and a note in the citations.
- **New Conditions 5.3.7., 5.4.16., 5.4.17., and 5.5.5.** – Added this condition for the Limestone Processing Operations from NSR Permit R13-3535.

Title V Boilerplate changes:

- **Condition 2.1.3.** – This condition was updated to delete the word “such” which was removed from 45CSR30 effective March 31, 2023. The reference was changed from 45CSR§30-2.12 to 45CSR§30-2.39. because the definition of “Secretary” was renumbered in a previous version of 45CSR30.
- **Condition 2.11.4** – The citation was changed from “45CSR§30-2.39” to “45CSR§30-2.40”.
- **Conditions 2.17., 3.5.7. and 3.5.8.a.1.** – These conditions were deleted and replaced with “Reserved” because the emergency provisions under 45CSR§30-5.7 were removed from 45CSR30 effective March 31, 2023.
- **Condition 2.22.1** – “45CSR38” was removed from the citation because this rule has been repealed.
- **Condition 3.5.3.** – This condition was updated to include the current EPA mailing address.
- **Condition 3.5.4.** – This condition was updated because the requirement to submit a certified emissions statement was removed from 45CSR30 effective March 31, 2023.
- **Condition 3.5.8.a.2.** – This condition was updated to replace the word “telefax” with “email” according to the change in 45CSR30 effective March 31, 2023.

Compliance Assurance Monitoring (CAM)

All the new equipment added to the permit with this renewal, are subject to 40 CFR 60, Subpart OOO which exempts it from CAM according to the exemption in 40CFR§64.2(b)(1)(i).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

N/A

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: (Date of Notice Publication)

Ending Date: (Publication Date PLUS 30 Days)

Point of Contact

All written comments should be addressed to the following individual and office:

Dan Roberts
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41902
Daniel.p.roberts@wv.gov

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.

NOTICE OF COMMENT PERIOD FOR DRAFT/PROPOSED OPERATING PERMIT RENEWAL

Title V of the Federal Clean Air Act and the state Air Pollution Control Act requires that all major sources and certain minor sources have a permit to operate which states all requirements (e.g. emission limitations, monitoring requirements, etc.) established by regulations promulgated under the aforementioned programs. The Division of Air Quality (DAQ) has determined that the draft/proposed permit renewal referenced herein meets this requirement.

The DAQ is providing notice to the general public of its preliminary determination to issue an operating permit renewal to the following company for operation of the referenced sandstone mining, quarrying, and processing facility:

U. S. Silica Company
Berkeley Springs Plant
Plant ID No.: 065-00001
2496 Hancock Rd
Berkeley Springs, WV 25411

This notice solicits comments from the public and affected state(s) concerning the above preliminary determination and provides an opportunity for such parties to review the basis for the proposed approval and the "draft" permit renewal. This notice also solicits comments from the U.S. EPA concerning the same preliminary determination and provides an opportunity for the U.S. EPA to concurrently review the basis for the proposed approval as a "proposed" permit.

All written comments submitted by the public and affected state(s) pursuant to this notice must be received by the DAQ within thirty (30) days of the date of publication of this notice. Under concurrent review, written comments submitted by the U.S. EPA must be received by the DAQ within forty-five (45) days from the date of publication of this notice or from the date the U.S. EPA receives this draft/proposed permit renewal, whichever is later. In the event the 30th/45th day is a Saturday, Sunday, or legal holiday, the comment period will be extended until 5:00 p.m. on the following regularly scheduled business day. The public shall have 135 days from the date of publication of this notice to file petitions for concurrently reviewed permits. Upon notice by the U.S. EPA to the DAQ, prior to the end of the 45 day notice period, the U.S. EPA may choose to hold the 30 day comment period on the draft permit and the 45 day comment period on the proposed permit sequentially. During the public comment period any interested person may submit written comments on the draft permit and, if no public hearing has been scheduled, may request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Director of the DAQ shall grant such a request for a hearing if she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located, after 30 day notice is given. The DAQ will consider all written comments prior to final action on the permit.

Copies of the Permit Application, DAQ Fact Sheet, and Draft/Proposed Permit Renewal may be downloaded from the DAQ's web site at: <https://dep.wv.gov/daq/permitting/titlevpermits/Pages/default.aspx>.

Comments and questions concerning this matter should be addressed to:

WV Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Contact: Dan Roberts
(304) 926-0499 ext.: 41902
daniel.p.roberts@wv.gov



Roberts, Daniel P <daniel.p.roberts@wv.gov>

Re: Title V renewal application - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Tue, Aug 27, 2024 at 8:51 AM

To: "Olchawa, David" <Olchawa@ussilica.com>

Cc: "Bish, Jason" <jbish@ussilica.com>, "Rigler, Andrew" <Rigler@ussilica.com>, "Davis, Brad" <DavisBra@ussilica.com>

Mr. Olchawa,

Good morning. Thanks for the reply and explanation. That ties everything up for me. I will forward a copy of the draft renewal permit and fact sheet for your review when I finish them.

Thanks again!

Dan Roberts

WV Department of Environmental Protection

Division of Air Quality

Title V Permitting Section

601 57th Street, S.E.

Charleston, WV 25304

(304) 926-0499 ext. 41902

daniel.p.roberts@wv.gov

On Tue, Aug 27, 2024 at 8:30 AM Olchawa, David <Olchawa@ussilica.com> wrote:

Mr. Roberts,

Thank you for your question regarding the Berkeley Springs Limestone Plant. The Limestone plant was originally permitted as a temporary operation that was experimental issued as R13-3519T. Once it was determined that this operation would work we applied for a permanent permit in September of 2021 (permit R13-3535). Unfortunately the application contained a typographical error in refreshing the application materials for the permanent installation of the same equipment by leaving in the wording you are asking about, "rental equipment that was experimental." This was not intended and the equipment is currently at the site and in operation today. All notifications of startup and testing were completed for the Limestone plant.

If you would like to discuss further we can jump on a quick call.

Respectfully,

David Olchawa

Director - Environmental Compliance

U. S. Silica Company

From: Bish, Jason <jbish@ussilica.com>
Sent: Monday, August 26, 2024 10:56 AM
To: Olchawa, David <Olchawa@ussilica.com>
Subject: Fwd: Title V renewal application - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024

From: Roberts, Daniel P <daniel.p.roberts@wv.gov>
Sent: Monday, August 26, 2024 10:12 AM
To: Bish, Jason <jbish@ussilica.com>
Cc: Davis, Brad <DavisBra@ussilica.com>; Rigler, Andrew <Rigler@ussilica.com>
Subject: Title V renewal application - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024

CAUTION: This email originated from outside of U.S. Silica. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Bish,

Good morning. I am reviewing your current Title V renewal application and two minor modifications which have been submitted to the WV DAQ. I just wanted to touch base with you regarding the two minor modifications.

NSR Rule 13 permit R13-3535 and associated Title V minor modification R30-06500001-2019 MM01 were received on September 20, 2021. Permit R13-3535 was approved on November 22, 2021 for the installation of two portable crushers and three double deck screens to configure a limestone processing plant. The application stated that this would be rental equipment and that the proposed changes were experimental. Can you confirm that the the equipment permitted under permit R13-3535 is still on site and operating at this time?

NSR Rule 13 permit R13-2595C and associated Title V minor modification R30-06500001-2019 MM02 were received on June 12, 2024. As of today, Permit R13-2595C is still under review and therefore cannot be incorporated into the renewal permit before it is issued. This minor modification would then be renumbered as minor modification R30-06500001-2024 MM01 and processed after permit R13-2595C has been approved.

Please respond as soon as possible regarding the status of the limestone processing plant permitted under permit R13-3535. Also, let me know if you have any questions or comments at this time.

Sincerely,

Dan Roberts

WV Department of Environmental Protection

Division of Air Quality

Title V Permitting Section

601 57th Street, S.E.

Charleston, WV 25304

(304) 926-0499 ext. 41902

daniel.p.roberts@wv.gov



Roberts, Daniel P <daniel.p.roberts@wv.gov>

Automatic reply: Title V renewal application - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024

1 message

Bish, Jason <jbish@ussilica.com>
To: "Roberts, Daniel P" <daniel.p.roberts@wv.gov>

Mon, Aug 26, 2024 at 11:13 AM

I am out of the office on business travel. I will respond upon my return. Thank you.



Roberts, Daniel P <daniel.p.roberts@wv.gov>

Title V renewal application - U. S. Silica Company - Berkeley Springs Plant - R30-06500001-2024

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov>
To: JBish@ussilica.com
Cc: davisbra@ussilica.com, rigler@ussilica.com

Mon, Aug 26, 2024 at 11:12 AM

Mr. Bish,

Good morning. I am reviewing your current Title V renewal application and two minor modifications which have been submitted to the WV DAQ. I just wanted to touch base with you regarding the two minor modifications.

NSR Rule 13 permit R13-3535 and associated Title V minor modification R30-06500001-2019 MM01 were received on September 20, 2021. Permit R13-3535 was approved on November 22, 2021 for the installation of two portable crushers and three double deck screens to configure a limestone processing plant. The application stated that this would be rental equipment and that the proposed changes were experimental. Can you confirm that the the equipment permitted under permit R13-3535 is still on site and operating at this time?

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Please respond as soon as possible regarding the status of the limestone processing plant permitted under permit R13-3535. Also, let me know if you have any questions or comments at this time.

Sincerely,

Dan Roberts
WV Department of Environmental Protection
Division of Air Quality
Title V Permitting Section
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0499 ext. 41902
daniel.p.roberts@wv.gov



Roberts, Daniel P <daniel.p.roberts@wv.gov>

WV DAQ Title V Permit Renewal Application Complete for U.S. Silica Company's Berkley Springs Quarry

1 message

Roberts, Daniel P <daniel.p.roberts@wv.gov>

Fri, Dec 15, 2023 at 5:31 PM

To: jbish@ussilica.com

Cc: davisbra@ussilica.com, zayne.zalich@trinityconsultants.com, "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>

RE: Application Status: Complete

U.S. Silica Company

Berkley Springs Quarry

Permit Renewal Application R30-06500001-2023

Mr. Bish,

Your Title V renewal application for a permit to operate the above referenced facility was received by this Division on October 23, 2023. After review of said application, it has been determined that the application is administratively complete as submitted. Therefore, the above referenced facility qualifies for an Application Shield.

The applicant has the duty to supplement or correct the application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

The submittal of a complete application shall not affect the requirement that any source have all **preconstruction permits** required under the rules of the Division.

If during the processing of this application it is determined that additional information is necessary to evaluate or take final action on this application, a request for such information will be made in writing with a reasonable deadline for a response. Until which time as your renewal permit is issued or denied, please continue to operate this facility in accordance with 45CSR30, section 6.3.c. which states: *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.* This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph 6.1.d. of 45CSR30 and as required by paragraph 4.1.b., the applicant fails to submit by the deadline specified in writing any additional information identified as being needed to process the application.

Please remember, **failure of the applicant to timely submit information required or requested to process the application may cause the Application Shield to be revoked.** Should you have any questions regarding this determination, please call me at (304)926-0499 ext. 41902.

Sincerely,

Daniel P. Roberts

WV Department of Environmental Protection

Division of Air Quality

(304) 926-0499 ext. 41902

Daniel.p.roberts@wv.gov



Roberts, Daniel P <daniel.p.roberts@wv.gov>

US Silica dated application

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov>
To: Daniel P Roberts <daniel.p.roberts@wv.gov>

Tue, Oct 24, 2023 at 8:45 AM

Finally made it work...here you go!

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

 **R30-06500001-2024 US Silica renewal dated.pdf**
6655K

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

• Type of NSR Application (check all that apply):

- Construction
- Modification
- Class I Administrative Update
- Class II Administrative Update
- Relocation
- Temporary
- Permit Determination

• Type of 45CSR30 (TITLE V) Application:

- Title V Initial
- Title V Renewal
- Administrative Amendment**
- Minor Modification**
- Significant Modification**
- Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENTS to the combined NSR/Title V application.**

• Payment Type:

- Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
- Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

• If the permit writer has any questions, please contact (all that apply):

Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

Company Contact

- Name:
- Email:
- Phone Number:

Consultant

- Name:
- Email:
- Phone Number:

**TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.</p>	
<input checked="" type="checkbox"/>	Application signed by a Responsible Official as defined in 45CSR§30-2.38 (“ <i>Section 6: Certification of Information</i> ” page signed and dated)
<input checked="" type="checkbox"/>	Table of Contents (should be included, but not required for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input checked="" type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



Berkeley Springs Plant

Title V Permit to Operate Renewal Application
Permit Number: R30-06500001-2019
October 16, 2023

Table of Contents

Introduction

Attachment A - Area Map

Attachment B - Plot Plan

Attachment C - Process Flow Diagrams

Attachment D - Equipment Table

Attachment E - Emission Unit Forms

Attachment F - Schedule Of Compliance Forms

Attachment G - Air Pollution Control Device Forms

Attachment H - Compliance Assurance Monitoring (CAM) Forms

Table 4. Revisions to Attachment G - Air Pollution Control Device Forms

Introduction

U.S. Silica submitted a Title V permit renewal application to the West Virginia Department of Environmental Protection (WVDEP) in August 2018 to fulfill the permit requirements for a major air pollution emission source. The WVDEP issued a Permit to Operate pursuant to Title V of the Clean Air Act on **May 7, 2019** (Permit No. R30-06500001-2019). This permit will expire on May 7, 2024. The WVDEP requires renewal applications for Title V permits to be submitted no earlier than 12 months and no later than 6 months before the expiration date. As such, the facility must submit its renewal application before November 7, 2023. The following document provides the information required for the renewal application. For completeness the following information is submitted:

- A signed copy of the application (at least one must contain the original “Certification” page signed and dated in blue ink).
- Table of Contents.
- Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios.
- Area map showing plant location and plot plan showing buildings and process areas.
- Process flow diagram(s), showing all emission units, control equipment, emission points, and the ir relationships.
- Identification of all applicable requirements with a description of the compliance status and the methods used for demonstrating compliance.
- The facility is in compliance with all applicable requirements; as such, a Schedule of Compliance Form (ATTACHMENT F) is not included.
- A listing of all active permits and consent orders is included in the General Application Forms.
- The facility-wide emissions summary is included in the General Application Forms.
- Identification of Insignificant Activities is included in the General Application Forms.
- ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities.
- ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D). Detailed Facility-wide emission calculations are included as supplement to Attachment E.
- ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D).
- ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G).
- The General Application Forms have been signed by a Responsible Official.
- The facility is not seeking confidential information status for this submittal.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (U.S. Silica Company), 2. Facility Name (Berkeley Springs Plant), 3. DAQ Plant ID No. (065-00001), 4. Federal Employer ID No. (FEIN) (23-0958670), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (78), 9. Governmental Code (Privately owned), 10. Business Confidentiality Claims (No).

11. Mailing Address		
Street or P.O. Box: P.O. Box 187		
City: Berkeley Springs	State: West Virginia	Zip: 25411
Telephone Number: (304) 258-2500	Fax Number: (304) 258-8293	

12. Facility Location					
Street: Route 522 North		City: Berkeley Springs		County: Morgan	
UTM Easting: 739.55	km	UTM Northing: 4393.48	km	Zone: 17 or <input type="checkbox"/> 18	
Directions: Three miles north of Berkeley Springs off of Route 522.					
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input type="checkbox"/> No				If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				If yes, name the affected state (s). Maryland Pennsylvania	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
<small>¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</small>					

13. Contact Information		
Responsible Official: Jason Bish		Title: Vice President of EHS, U.S. Silica Company
Street or P.O. Box: 2496 Hancock Road		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number:	Fax Number: N/A	
E-mail address:		
Environmental Contact: Brad Davis		Title: EHS Manager
Street or P.O. Box: 2496 Hancock Rd		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number: (304) 702-5515	Fax Number: N/A	
E-mail address: DavisBra@ussilica.com		
Application Preparer: S/A		Title: S/A
Company: U.S. Silica Company		
Street or P.O. Box: S/A		
City:	State:	Zip:
Tele phone Number:	Fax Number:	
E-mail address:		

14. Facility Description

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

Process	Products	NAICS	SIC
Industrial Sand Mining and Processing	Silica Sand Products	212322	1446

Provide a general description of operations.

Sandstone is mined and processed into unground, ground and micronized silica sand products. Processes include the following:

- Mining
- Crushing
- Screening
- Drying
- Milling
- Classification
- Limestone System
- Packaging and Bulk Loading

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

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

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

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non-Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
<input type="checkbox"/> Permit Shield

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

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

Permit Shield

20. Facility-Wide Applicable Requirements

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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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)]

R30-06500001-2014 (MM 01 & MM 02) 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 (M VACs) 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]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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 45CSR§7-3.2. [45CSR§7-3.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. [45CSR§7-3.7] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.11. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7. [45CSR§7-4.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.12. No person shall circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. [45CSR§7-4.3]

R30-06500001-2014 (MM 01 & MM 02) 3.1.13. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. [45CSR§7-5.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.14. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR§ 7-5.2] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

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

Monitoring Requirements

R30-06500001-2014 (MM 01 & MM 02) 3.2.1. Each Process Source Operation (See Note below) with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions from any of the Process Source Operation are observed during these weekly observations, or at any other time, that appear to exceed the allowable visible emission requirement for the Process Source Operation, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than one month from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition Section 3.2.1 if the visible emissions condition is corrected in a timely manner; the Process Source Operation is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§ 30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.2.2. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems monthly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.

Preventive maintenance inspections of potential fugitive dust sources, such as outdoor conveying systems, transfer points, and bulk loadouts will be conducted on a periodic basis by operations personnel. This is in addition to the monthly inspections required above.

Parking lots, roadways, other vehicle travel areas, and storage piles will be regularly observed by trained personnel to determine the need for fugitive dust control. A water truck must be available for control of dust on roadways and parking lots on an as needed basis. The water truck will be included in the facility's preventive maintenance program. Dates of water truck usage will be provided on the Pre-Shift Inspection Reports maintained by the Quarry office.

U.S. Silica shall keep all maintenance and preventive maintenance records via a mainframe computer system. [45CSR§30-5.1.c.]

Note : Process Source operations include the following : Primary Crushing Plant, Secondary Crushing Plant, Wet Processing Plant, Screening and unground sand Processing, Milling, 10/15/30/40 Micron Classification, 5 Micron Classification, Wet Float Plant & Storage Structures.

R30-06500001-2014 (MM 01 & MM 02) 3.2.3. (Note: The following section numbers match those of 40 C.F.R. §64.7)

(b) *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) *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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) 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 this part, 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.

(d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator 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.

(2) Determination of whether the owner or operator 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.

(e) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator 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 owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 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.
[40CFR§64.7; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 3.2.4. (Note: The following section numbers match those of 40 C.F.R. §64.8)

§ 64.8 Quality improvement plan (QIP) requirements.

- (a) Based on the results of a determination made under § 64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with § 64.6(c)(3), the part 70 or 71 permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.
- (b) Elements of a QIP:
 - (1) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
 - (2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
 - (i) Improved preventive maintenance practices.
 - (ii) Process operation changes.
 - (iii) Appropriate improvements to control methods.
 - (iv) Other steps appropriate to correct control performance.
 - (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (b)(2)(i) through (iv) of this section).
- (c) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (d) Following implementation of a QIP, upon any subsequent determination pursuant to § 64.7(d)(2) the Administrator or the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (e) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40CFR§64.8; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

Testing Requirements

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.2. Except as provided in the terms and conditions of specific emission units, the permittee shall conduct stack tests upon request by Director, establish parameter indicator ranges, and furnish the Secretary a written report of the results of such testing and established indicator ranges. The permittee shall use Method 5 or an alternative method approved by the Secretary for such testing. For wet scrubber control devices, parameter indicator ranges shall be established for the water pressure to the control equipment and the pressure loss of the inlet airflow to the scrubber. The permittee shall establish parameter indicator ranges and operate within these ranges to provide a reasonable assurance that the emission unit is in compliance with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of 45CSR7A;
- b. Amount of material processed;
- c. Water pressure to the control equipment; and
- d. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the

control equipment.

These records shall be maintained on site and in accordance with 3.4.2.

[45CSR§30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.3.3. 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.4. 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]

Recordkeeping Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

[45CSR13, R13-2145, 4.4.1.] (SCREN 7-9, 14-15; BE01; BE02; LS01; CF #36; CF #6)

R30-06500001-2014 (MM 01 & MM 02) 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.][45CSR13, R13-0715, A.11; R13-2595, B.9]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.4.4. 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 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.]

Reporting Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.5.7. Emergencies. For reporting emergency situations, refer to Section 2.17 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 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:

4. 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.

5. 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.

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

7. 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

Permit Shield

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

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

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	13.75
Nitrogen Oxides (NO _x)	96.35
Lead (Pb)	0.21
Particulate Matter (PM _{2.5}) ¹	114.30
Particulate Matter (PM ₁₀) ¹	239.20
Total Particulate Matter (TSP)	534.96
Sulfur Dioxide (SO ₂)	267.00
Volatile Organic Compounds (VOC)	1.29
Hazardous Air Pollutants ²	Potential Emissions
Total HAP	2.323
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Carbon Dioxide (CO ₂)	61,682.95
Methane (CH ₄)	2.54
Nitrous Oxide (N ₂ O)	0.51

¹PM_{2.5} and PM₁₀ are components of TSP.

²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	19. Emission units which do not have any applicable requirements, and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: <u>All organic liquid tanks listed in Attachment D</u>
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements, and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

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

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

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

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification

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

Responsible official (type or print)

Name: Jason Bish

Title: Vice President of EHS

Responsible official's signature:

Signature: 

Signature Date: 10/23/23

(Must be signed and dated in blue ink)

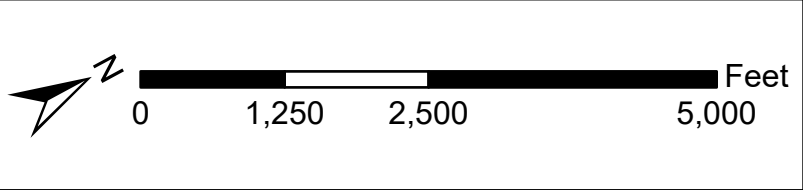
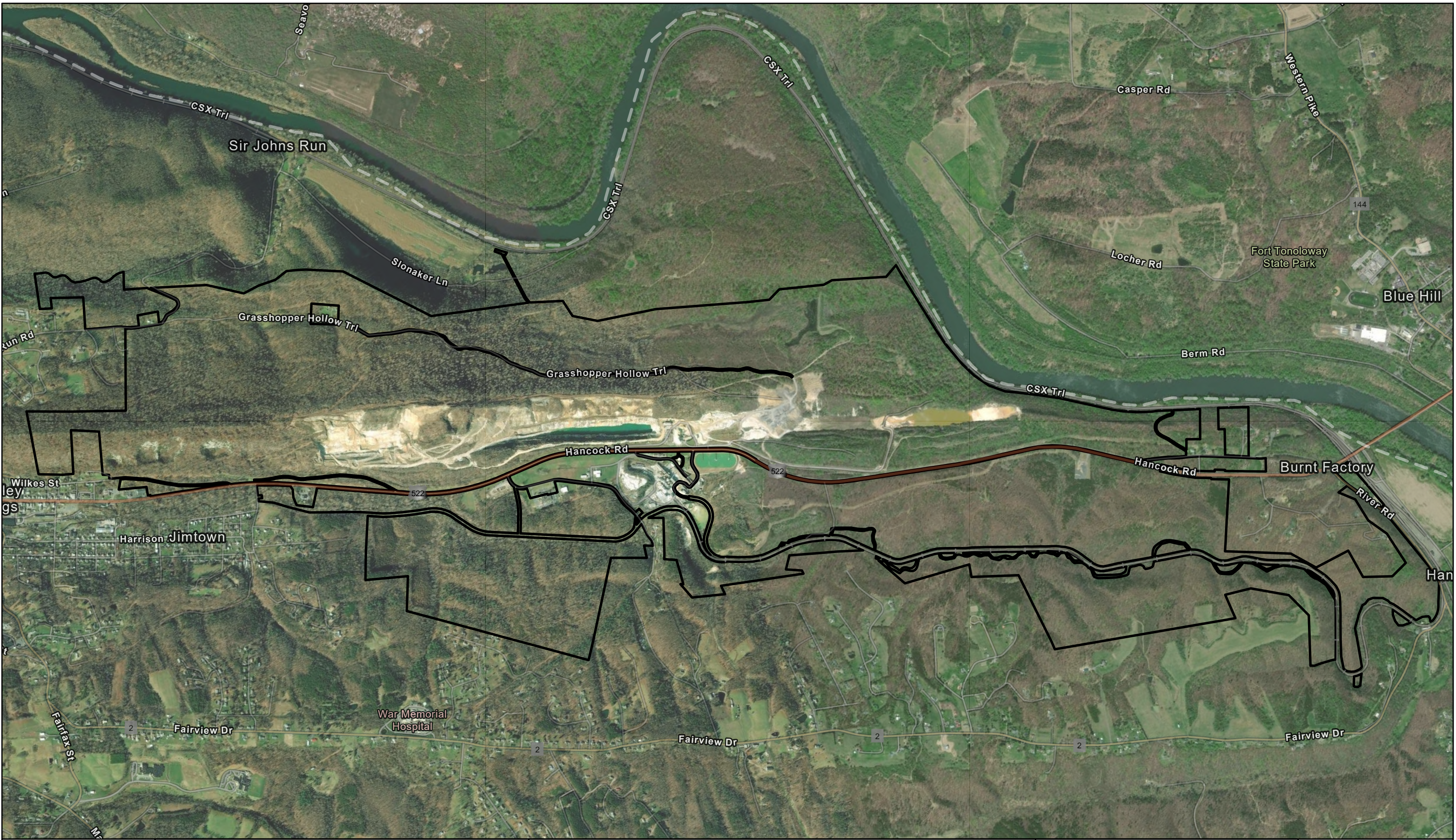
Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s) (Not Applicable Based on Compliance Status)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) (Included but No Changes to Prior Version)

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

Attachment A

Area Map



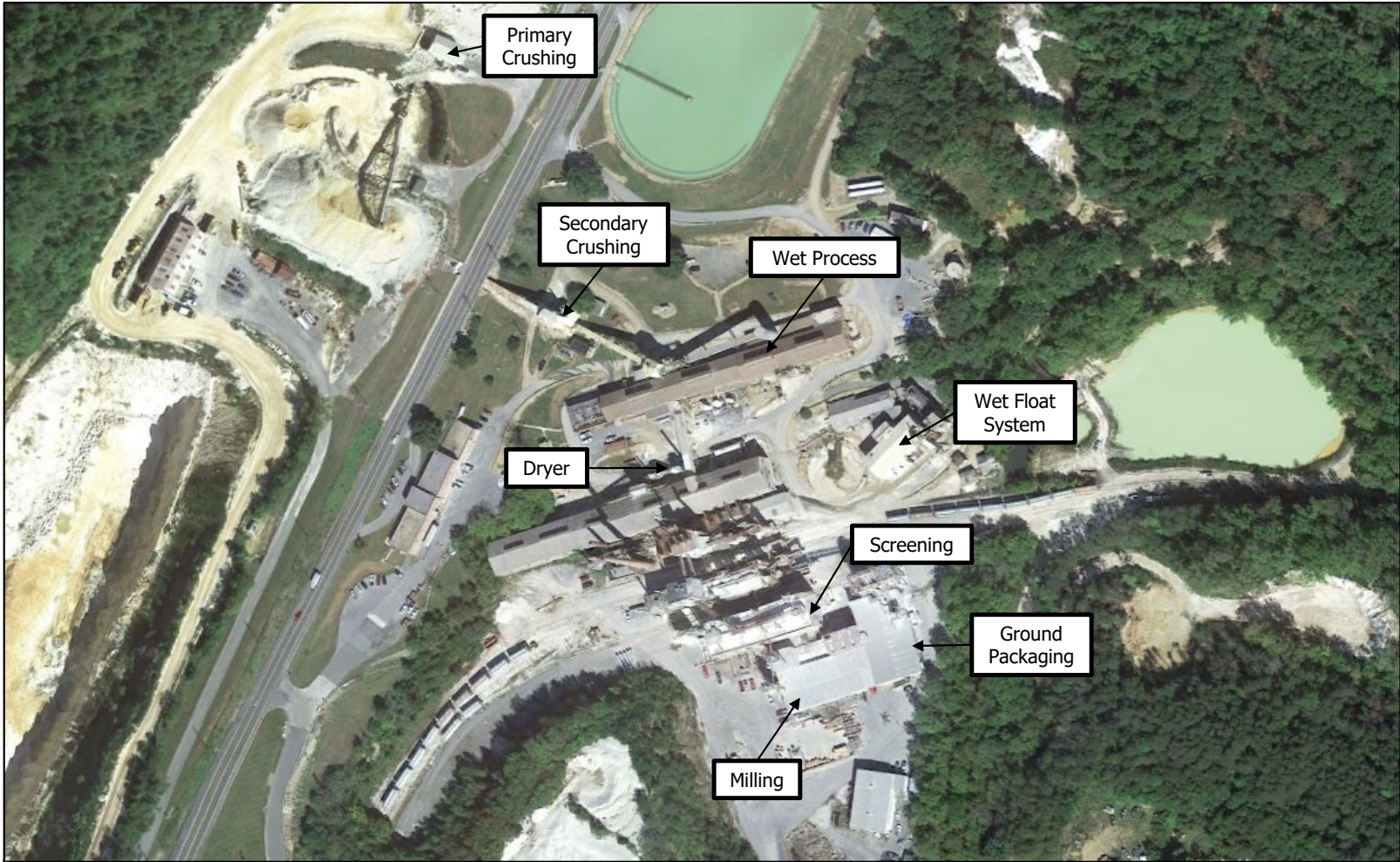
Berkeley Facility Site Map

Property Outline

Created By: T. A. Lindblad
Date: 10052023
File Location: \\BerkeleyWestVirginia\Outline

Attachment B

Plot Plan



 Environmental Department		Berkeley Facility Plot Plan	
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Attachment C

Process Flow Diagram

Figure 1. Primary and Secondary Crushing

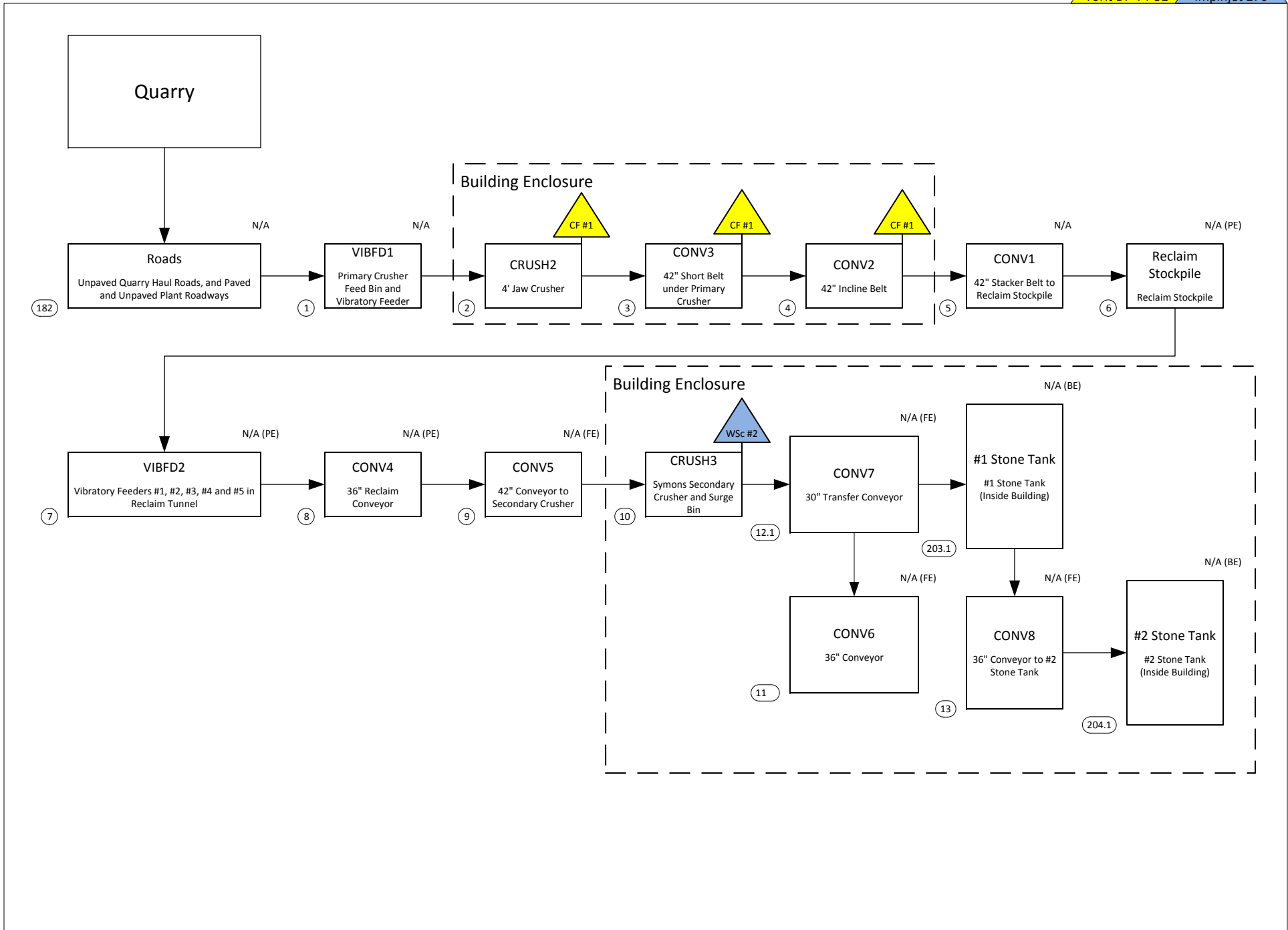


Figure 2. Wet Processing Plant (Rod Mill Building)

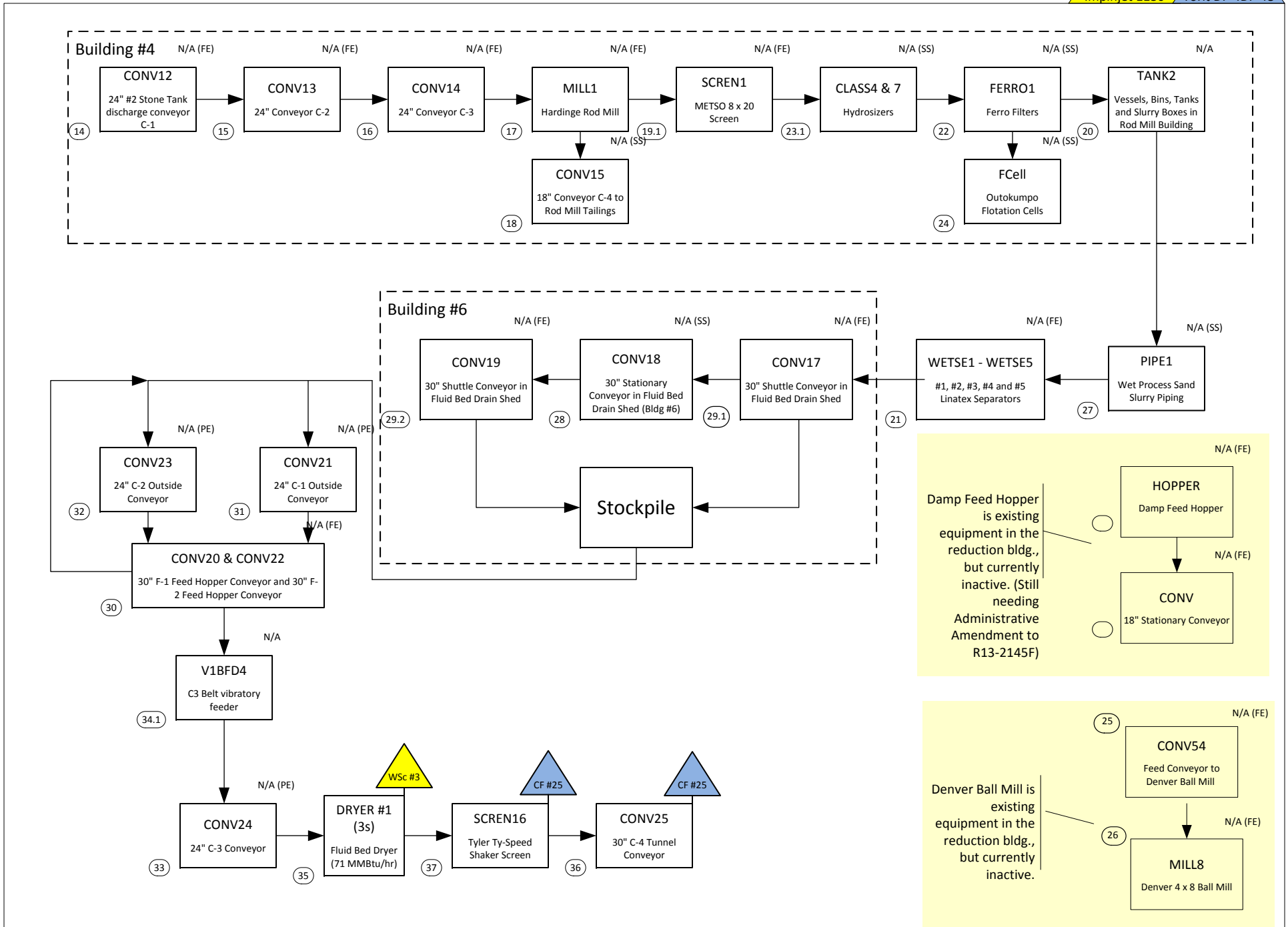


Figure 3. Wet Float System (Currently Inactive)

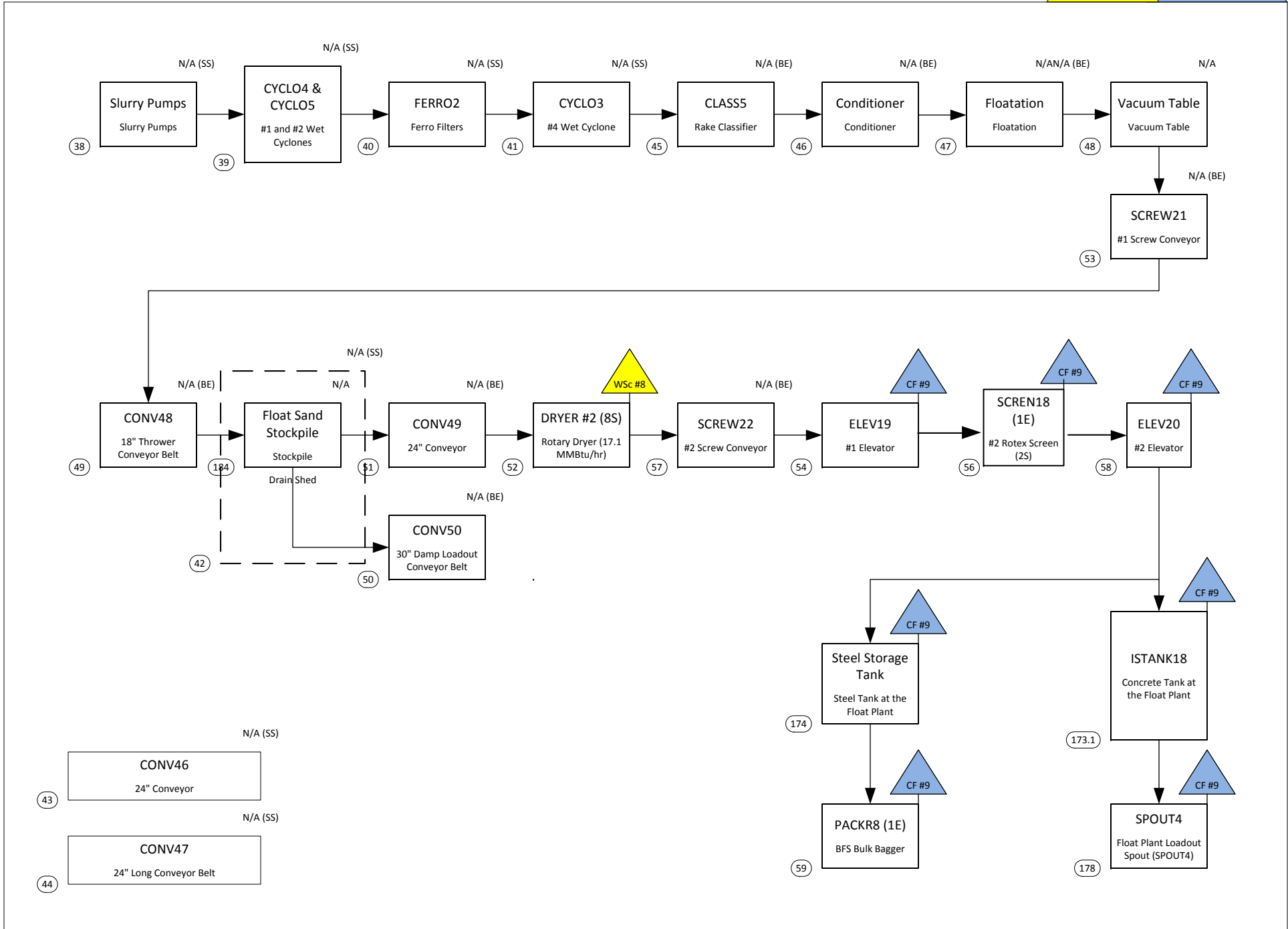


Figure 4. Screening and Uground Sand Processing (6-4-13)

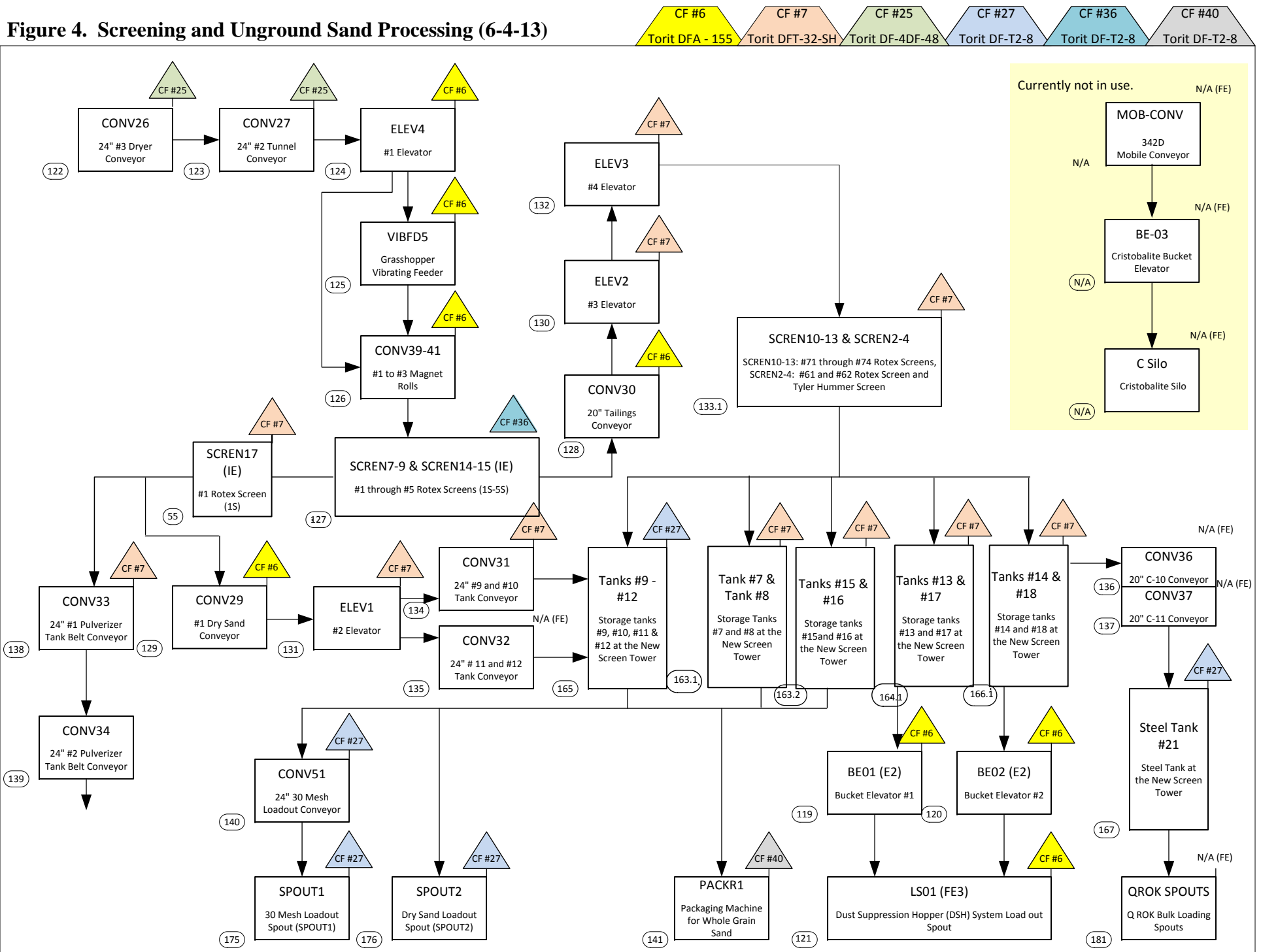


Figure 5. Milling - #1 through #4 Pebble Mills

CF #10
CFH 40T-20-B

CF #11
Torit DFT 4-48

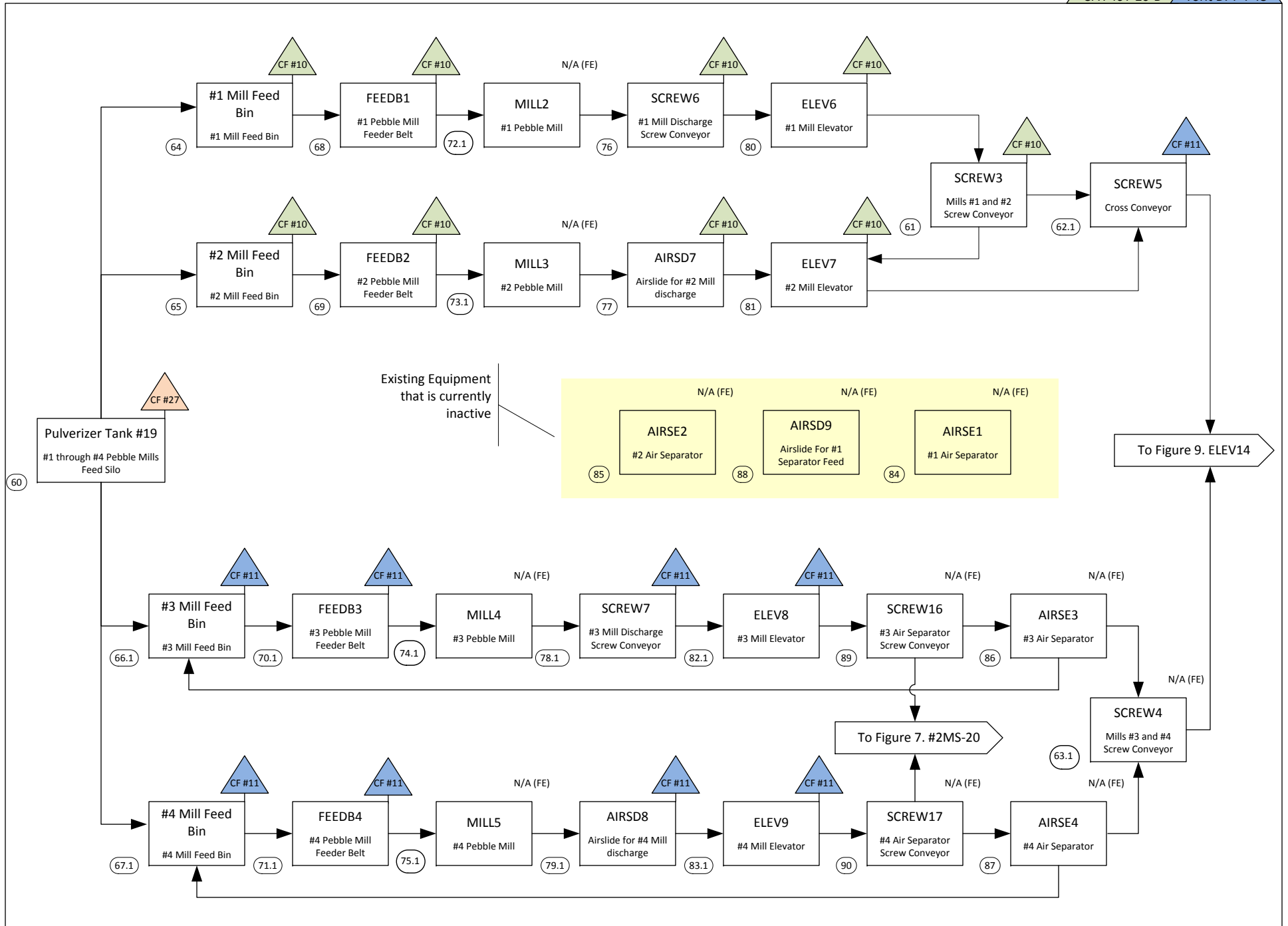


Figure 6. Milling - #5 and #6 Pebble Mills, and Coarse Ground Special Circuit

CF #12 CFH 40T-20-B
 CF #27 Torit DF-T2-8
 CF #41 DFT2-4-155

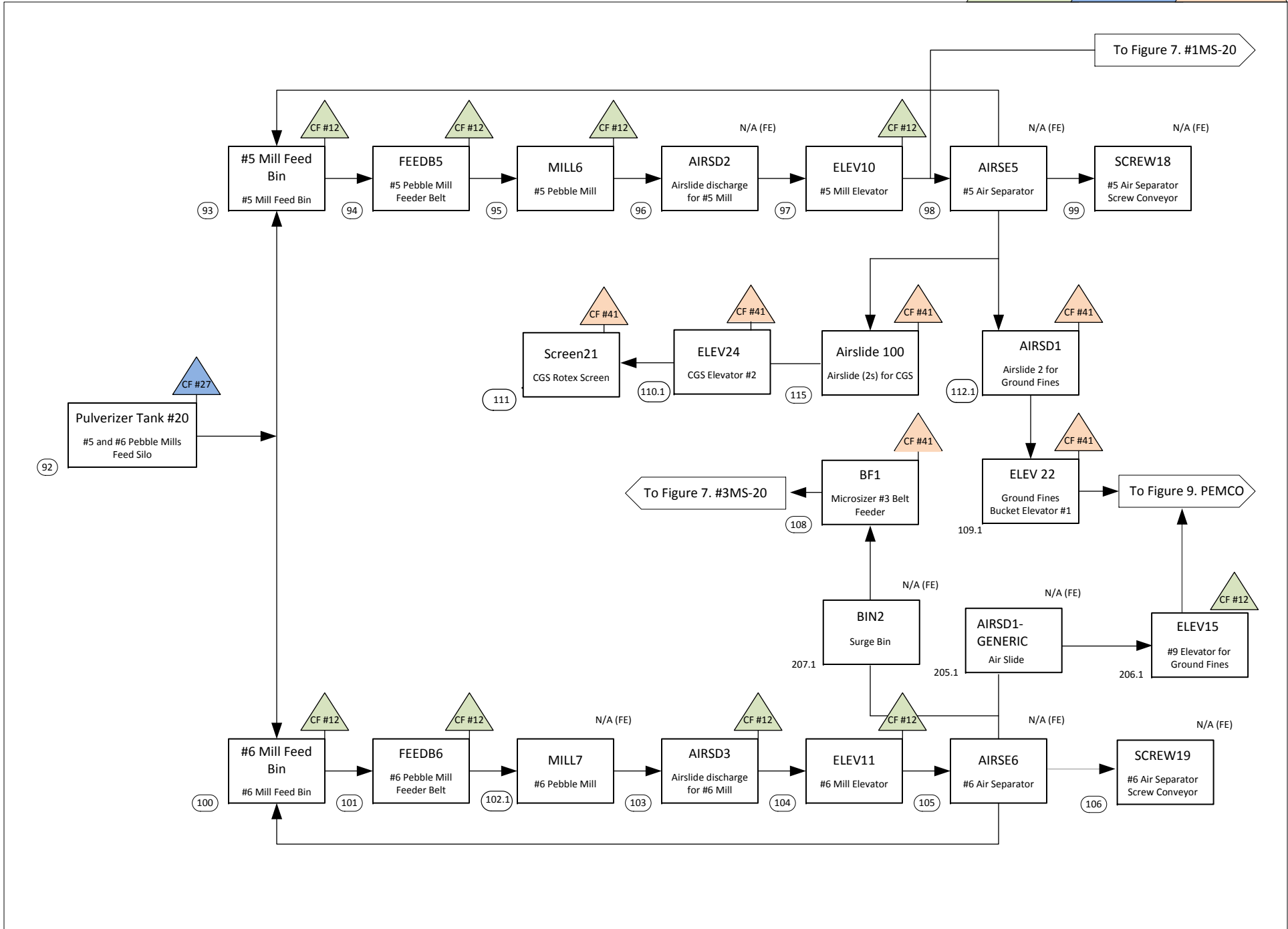


Figure 7. Micro-sizer Classification 10/20/30/40 Micron

CF #42 DFT-3-6
 CF #11 CFH 40T-20-B
 CF #12 CFH 40T-20-B

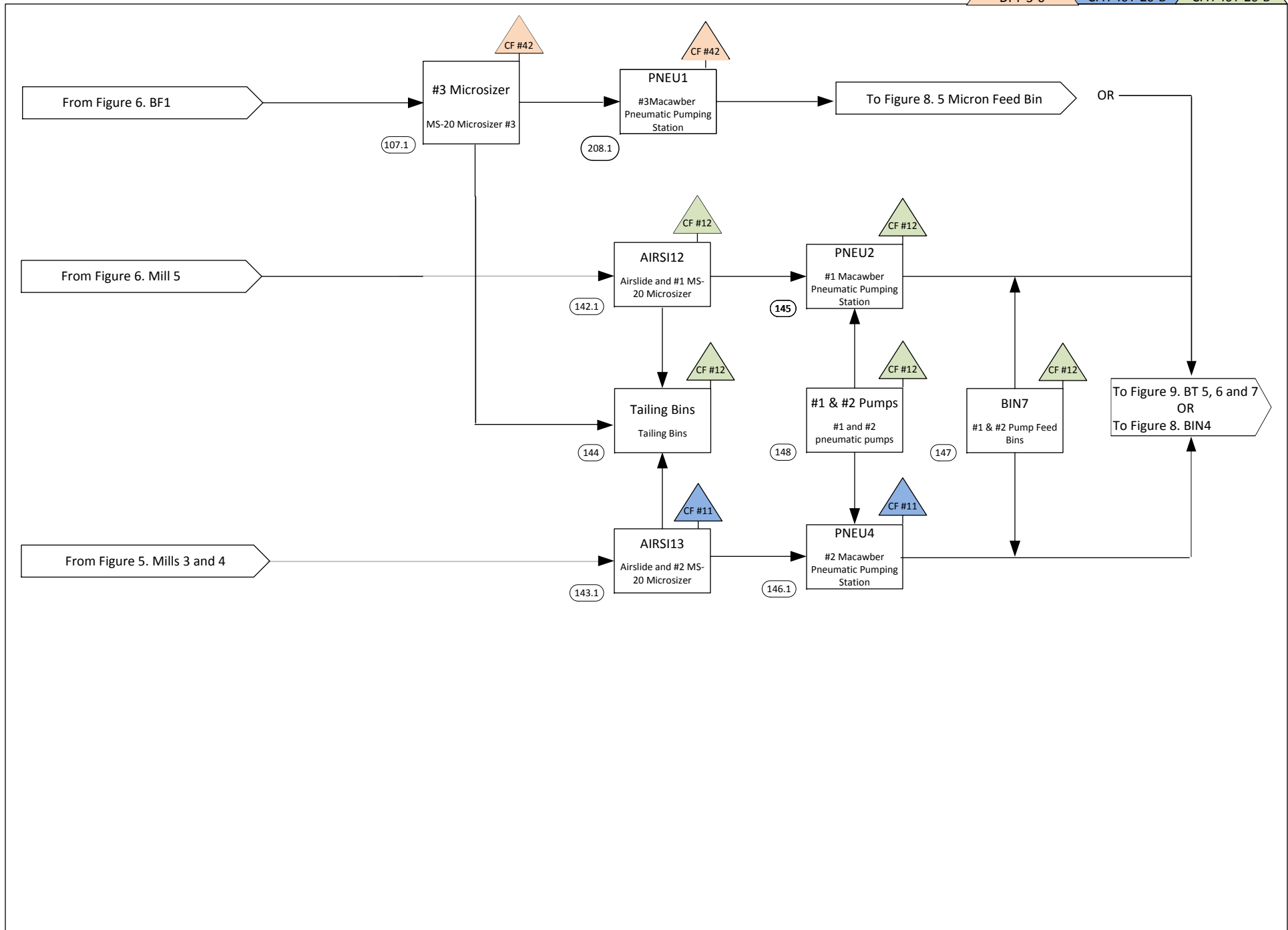


Figure 8. 5 Micron Classification, Loading and Packaging

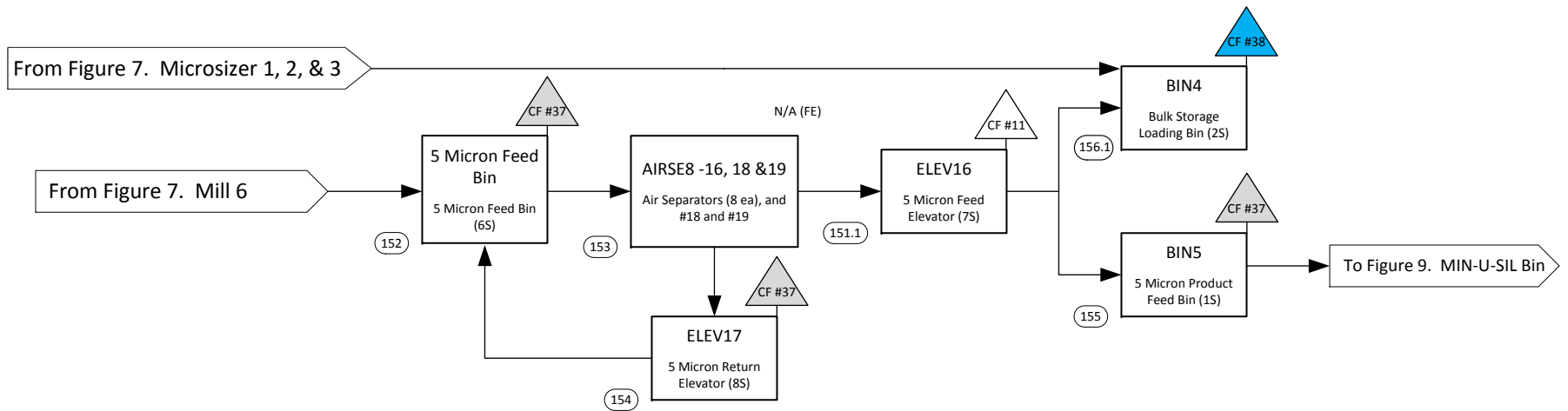


Figure 9. Loading and Packaging

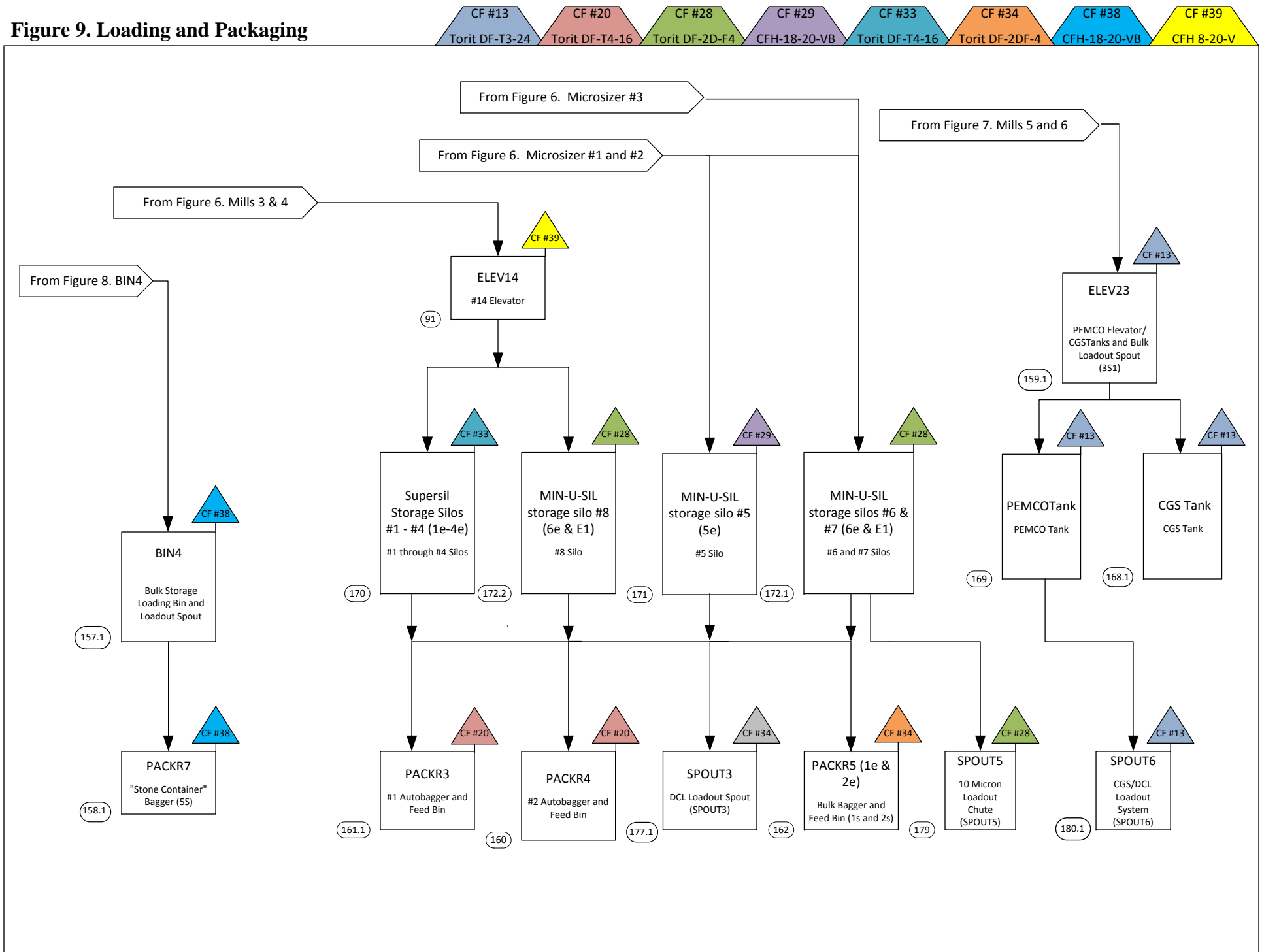
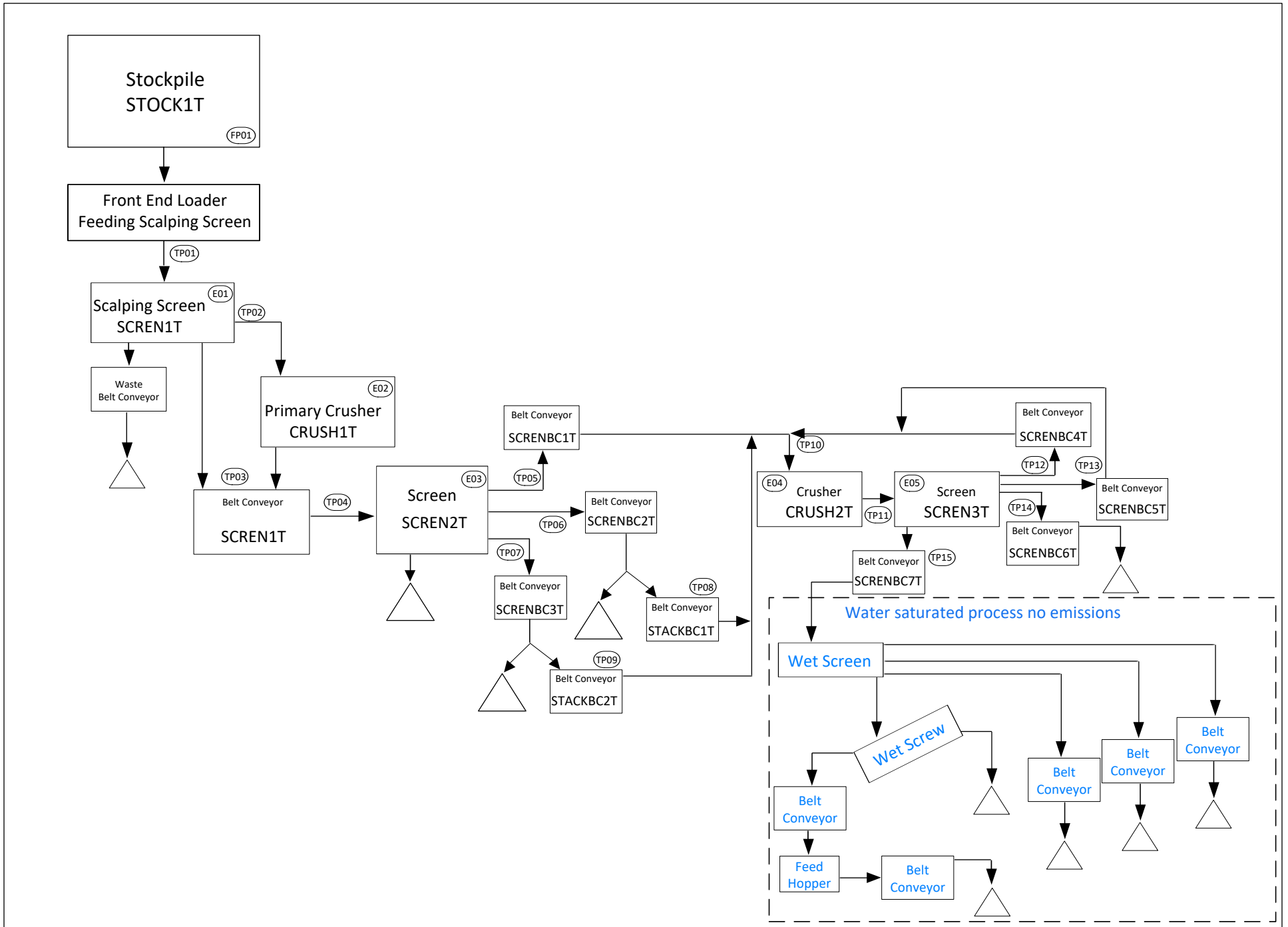


Figure 10. Limestone Processing Plant



Attachment D

Equipment Table

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
Primary Crushing Plant						
1	N/A	N/A	VIBFD1	Primary Crusher Feed Bin and Vibratory Feeder	1000	Pre-1970
2	Stack #1	CF #1	CRUSH2	4' Jaw Crusher	800	Pre-1970
3	Stack #1	CF #1	CONV3	42" Short Belt under Primary Crusher	800	Pre-1970
4	Stack #1	CF #1	CONV2	42" Incline Belt	800	Pre-1970
5	N/A	N/A	CONV1	42" Stacker Belt to Reclaim Stockpile	800	Pre-1970
6	Reclaim Stockpile	N/A (PE)	Reclaim Stockpile	Reclaim Stockpile	800	Pre-1970
Secondary Crushing Plant						
7	N/A	N/A (PE)	VIBFD2	Vibratory Feeders #1, #2, #3, #4 and #5 in Reclaim Tunnel	400	Pre-1970
8	N/A	N/A (PE)	CONV4	36" Reclaim Conveyor	400	Pre-1970
9	N/A	N/A (FE)	CONV5	42" Conveyor to Secondary Crusher	400	Pre-1970
10	Stack #2	WSc #2	CRUSH3	Symons Secondary Crusher and Surge Bin	400	Pre-1970
11	N/A	N/A (FE)	CONV6	36" Conveyor	400	Pre-1970
12.1	N/A	N/A (FE)	CONV7	30" Transfer Conveyor	400	Pre-1970
13	N/A	N/A (FE)	CONV8	36" Conveyor to #2 Stone Tank	400	Pre-1970
Wet Processing Plant (Rod Mill Building)						
14	N/A	N/A (FE)	CONV12	24" #2 Stone Tank discharge conveyor C-1	200	Pre-1970
15	N/A	N/A (FE)	CONV13	24" Conveyor C-2	200	Pre-1970
16	N/A	N/A (FE)	CONV14	24" Conveyor C-3	200	Pre-1970
17	N/A	N/A (FE)	MILL1	Hardinge Rod Mill	200	Pre-1970
18	N/A	N/A (SS)	CONV15	18" Conveyor C-4 to Rod Mill Tailings	150	Pre-1970
19.1	N/A	N/A (FE)	SCREN1	METSO 8 x 20 Screen	200	Pre-1970
20	N/A	N/A	TANK2	Vessels, Bins, Tanks and Slurry Boxes in Rod Mill Building	200	Pre-1970
21	N/A	N/A (FE)	WETSE1 - WETSE5	#1, #2, #3, #4 and #5 Linatex Separators	200	Pre-1970
22	N/A	N/A (SS)	FERRO1	Ferro Filters	200	Pre-1970
23.1	N/A	N/A (SS)	CLASS4&7	Hydrosizers	200	Pre-1970
24	N/A	N/A (SS)	FCell	Outokumpo Flotation Cells	160	2004
25	N/A	N/A (FE)	CONV54	Feed Conveyor to Denver Ball Mill	50	2000
26	N/A	N/A (FE)	MILL8	Denver 4 x 8 Ball Mill	50	2000
27	N/A	N/A (SS)	PIPE1	Wet Process Sand Slurry Piping	200	Pre-1970
28	N/A	N/A (SS)	CONV18	30" Stationary Conveyor in Fluid Bed Drain Shed (Bldg #6)	200	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
29.1	N/A	N/A (FE)	CONV17	30" Shuttle Conveyor in Fluid Bed Drain Shed	200	Pre-1970
29.2	N/A	N/A (FE)	CONV19	30" Shuttle Conveyor in Fluid Bed Drain Shed	200	Pre-1970
30	N/A	N/A (FE)	CONV20 & CONV22	30" F-1 Feed Hopper Conveyor and 30" F-2 Feed Hopper Conveyor	200	1975
31	N/A	N/A (PE)	CONV21	24" C-1 Outside Conveyor	200	1975
32	N/A	N/A (PE)	CONV23	24" C-2 Outside Conveyor	200	1975
33	N/A	N/A (PE)	CONV24	24" C-3 Conveyor	200	1975
34.1	N/A	N/A	V1BFD4	C3 Belt, Vibratory Feeder	200	1975
35	Stack #3	WSc #3	DRYER #1 (3s)	Fluid Bed Dryer (71 MMBtu/hr)	200	1975
36	Stack #25	CF #25	CONV25	30" C-4 Tunnel Conveyor	200	1975
37	Stack #25	CF #25	SCREN16	Tyler Ty-Speed Shaker Screen	200	1995
Wet Float Plant						
38	N/A	N/A (SS)	Slurry Pumps	Slurry Pumps	25	Pre-1948
39	N/A	N/A (SS)	CYCLO4 & CYCLO5	#1 and #2 Wet Cyclones	25	Pre-1948
40	N/A	N/A (SS)	FERRO2	Ferro Filters	25	Pre-1948
41	N/A	N/A (SS)	CYCLO3	#4 Wet Cyclone	25	Pre-1948
42	N/A	N/A (SS)	Drain Shed	Drain Shed	25	Pre-1948
43	N/A	N/A (SS)	CONV46	24" Conveyor	25	Pre-1970
44	N/A	N/A (SS)	CONV47	24" Long Conveyor Belt	25	Pre-1970
45	N/A	N/A (BE)	CLASS5	Rake Classifier	25	Pre-1970
46	N/A	N/A (BE)	Conditioner	Conditioner	25	Pre-1970
47	N/A	N/A (BE)	Flotation	Flotation	25	Pre-1970
48	N/A	N/A	Vacuum Table	Vacuum Table	25	Pre-1970
49	N/A	N/A (BE)	CONV48	18" Thrower Conveyor Belt	25	Pre-1970
50	N/A	N/A (BE)	CONV50	30" Damp Loadout Conveyor Belt	25	Pre-1970
51	N/A	N/A (BE)	CONV49	24" Conveyor	25	Pre-1970
52	Stack #8	WSc #8	DRYER #2 (8S)	Rotary Dryer (17.1 MMBtu/hr)	25	Pre-1970
53	N/A	N/A (BE)	SCREW21	#1 Screw Conveyor	25	Pre-1970
54	Stack #9	CF #9	ELEV19	#1 Elevator	25	Pre-1970
56	Stack #9	CF #9	SCREN18 (1E)	#2 Rotex Screen (2S)	50	1999
57	N/A	N/A (BE)	SCREW22	#2 Screw Conveyor	25	Pre-1970
58	Stack #9	CF #9	ELEV20	#2 Elevator	25	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
59	Stack #9	CF #9	PACKR8 (1E)	BFS Bulk Bagger	30	1998
Milling Process						
60	Stack #27	CF #27	Pulverizer Tank #19	#1 through #4 Pebble Mills Feed Silo	150	Pre-1970
61	Stack #10	CF #10	SCREW3	Mills #1 and #2 Screw Conveyor	30	Pre-1970
62.1	Stack #11	CF #11	SCREW5	Cross Conveyor	30	Pre-1970
63.1	N/A	N/A (FE)	SCREW4	Mills #3 and #4 Screw Conveyor	30	Pre-1970
64	Stack #10	CF #10	#1 Mill Feed Bin	#1 Mill Feed Bin	100	Pre-1970
65	Stack #10	CF #10	#2 Mill Feed Bin	#2 Mill Feed Bin	100	Pre-1970
66.1	Stack #11	CF #11	#3 Mill Feed Bin	#3 Mill Feed Bin	100	Pre-1970
67.1	Stack #11	CF #11	#4 Mill Feed Bin	#4 Mill Feed Bin	100	Pre-1970
68	Stack #10	CF #10	FEEDB1	#1 Pebble Mill Feeder Belt	15	Pre-1970
69	Stack #10	CF #10	FEEDB2	#2 Pebble Mill Feeder Belt	15	Pre-1970
70.1	Stack #11	CF #11	FEEDB3	#3 Pebble Mill Feeder Belt	15	Pre-1970
71.1	Stack #11	CF #11	FEEDB4	#4 Pebble Mill Feeder Belt	15	Pre-1970
72.1	N/A	N/A (FE)	MILL2	#1 Pebble Mill	100	Pre-1970
73.1	N/A	N/A (FE)	MILL3	#2 Pebble Mill	100	Pre-1970
74.1	N/A	N/A (FE)	MILL4	#3 Pebble Mill	100	Pre-1970
75.1	N/A	N/A (FE)	MILL5	#4 Pebble Mill	100	Pre-1970
76	Stack #10	CF #10	SCREW6	#1 Mill Discharge Screw Conveyor	100	Pre-1970
77	Stack #10	CF #10	AIRSD7	Airslide for #2 Mill discharge	100	Pre-1970
78.1	Stack #11	CF #11	SCREW7	#3 Mill Discharge Screw Conveyor	100	Pre-1970
79.1	Stack #11	CF #11	AIRSD8	Airslide for #4 Mill discharge	100	Pre-1970
80	Stack #10	CF #10	ELEV6	#1 Mill Elevator	100	Pre-1970
81	Stack #10	CF #10	ELEV7	#2 Mill Elevator	100	Pre-1970
82.1	Stack #11	CF #11	ELEV8	#3 Mill Elevator	100	Pre-1970
83.1	Stack #11	CF #11	ELEV9	#4 Mill Elevator	100	Pre-1970
84	N/A	N/A (FE)	AIRSE1	#1 Air Separator	100	Pre-1970
85	N/A	N/A (FE)	AIRSE2	#2 Air Separator	100	Pre-1970
86	N/A	N/A (FE)	AIRSE3	#3 Air Separator	100	Pre-1970
87	N/A	N/A (FE)	AIRSE4	#4 Air Separator	100	Pre-1970
88	N/A	N/A (FE)	AIRSD9	Airslide for #1 Separator Feed	100	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
89	N/A	N/A (FE)	SCREW16	#3 Air Separator Screw Conveyor	100	Pre-1970
90	N/A	N/A (FE)	SCREW17	#4 Air Separator Screw Conveyor	100	Pre-1970
91	Stack #39	CF #39	ELEV14	#14 Elevator	150	Pre-1970
92	Stack #27	CF #27	Pulverizer Tank #20	#5 and #6 Pebble Mills Feed Silo	150	Pre-1970
93	Stack #12	CF #12	#5 Mill Feed Bin	#5 Mill Feed Bin	100	Pre-1970
94	Stack #12	CF #12	FEEDB5	#5 Pebble Mill Feeder Belt	15	Pre-1970
95	Stack #12	CF #12	MILL6	#5 Pebble Mill	100	Pre-1970
96	N/A	N/A (FE)	AIRSD2	Airslide discharge for #5 Mill	100	Pre-1970
97	Stack #12	CF #12	ELEV10	#5 Mill Elevator	100	Pre-1970
98	N/A	N/A (FE)	AIRSE5	#5 Air Separator	100	Pre-1970
99	N/A	N/A (FE)	SCREW18	#5 Air Separator Screw Conveyor	100	Pre-1970
100	Stack #12	CF #12	#6 Mill Feed Bin	#6 Mill Feed Bin	100	Pre-1970
101	Stack #12	CF #12	FEEDB6	#6 Pebble Mill Feeder Belt	15	Pre-1970
102.1	N/A	N/A (FE)	MILL7	#6 Pebble Mill	100	Pre-1970
103	Stack #12	CF #12	AIRSD3	Airslide discharge for #6 Mill	100	Pre-1970
104	Stack #12	CF #12	ELEV11	#6 Mill Elevator	100	Pre-1970
105	N/A	N/A (FE)	AIRSE6	#6 Air Separator	100	Pre-1970
106	N/A	N/A (FE)	SCREW19	#6 Air Separator Screw Conveyor	100	Pre-1970
108	Stack #41	CF #41	BF1	Microsizer #3 Belt Feeder	20	2005
109.1	Stack #41	CF #41	ELEV 22	Ground Fines Bucket Elevator #1	100	2005
110.1	Stack #41	CF #41	ELEV24	CGS Elevator #2	100	2005
111	Stack #41	CF #41	Screen21	CGS Rotex Screen	25	2005
112.1	Stack #41	CF #41	AIRSD1	Airslide 2 for Ground Fines	100	2005
115	Stack #41	CF #41	Airslide 100	Airslide (2s) for CGS	8	2005
205.1	N/A	N/A (FE)	AIRSD1-GENERIC	Generic EUID for Air Slides	100	N/A
206.1	Stack #12	CF #12	ELEV15	# 9 Bucket Elevator	100	Pre- 1970
207.1	N/A	N/A (FE)	BIN2	Surge Bin	100	Pre-1970
Screening and Unground Sand Processing						
	N/A	N/A (FE)	MOB-CONV	342D Mobile Conveyor	300	2017
	N/A	N/A (FE)	BE-03	Cristobalite Bucket Elevator #3	100	2017
	N/A	N/A (FE)	C Silo	Cristobalite Silo	150	2017

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
55	Stack #7	CF #7	SCREN17 (1E)	#1 Rotex Screen (1S)	50	2012
119	Stack #6	CF #6	BE01 (E2)	Bucket Elevator #1	150	2012
120	Stack #6	CF #6	BE02 (E2)	Bucket Elevator #2	150	2012
121	Stack #6	CF #6	LS01 (FE3)	Dust Suppression Hopper (DSH) System Load out Spout	150	2012
122	Stack #25	CF #25	CONV26	24" #3 Dryer Conveyor	200	Pre-1975
123	Stack #25	CF #25	CONV27	24" #2 Tunnel Conveyor	200	Pre-1975
124	Stack #6	CF #6	ELEV4	#1 Elevator	200	Pre-1975
125	Stack #6	CF #6	VIBFD5	Grasshopper Vibrating Feeder	200	1973
126	Stack #6	CF #6	CONV39-41	#1 to #3 Magnet Rolls	200	Pre-1975
127	Stack #36	CF #36	SCREN7-9 & SCREN14-15 (IE)	#1 through #5 Rotex Screens (1S-5S)	375	1995-1997
128	Stack #6	CF #6	CONV 30	20" Tailings Conveyor	30	Pre-1975
129	Stack #6	CF #6	CONV29	#1 Dry Sand Conveyor	175	Pre-1975
130	Stack #7	CF #7	ELEV2	#3 Elevator	30	Pre-1975
131	Stack #7	CF #7	ELEV1	#2 Elevator	75	Pre-1975
132	Stack #7	CF #7	ELEV3	#4 Elevator	75	Pre-1975
133.1	Stack #7	CF #7	SCREN10-13 & SCREN2-4	SCREN10-13: #71 through #74 Rotex Screens, SCREN2-4: #61 and #62 Rotex Screens and Tyler Hummer Screen	75	Modified 1996 Pre-1975
134	Stack #7	CF #7	CONV31	24" #9 and #10 Tank Conveyor	75	Pre-1975
135	N/A	N/A (FE)	CONV32	24" # 11 and #12 Tank Conveyor	75	Pre-1975
136	N/A	N/A (FE)	CONV36	20" C-10 Conveyor	110	Pre-1975
137	N/A	N/A (FE)	CONV37	20" C-11 Conveyor	110	Pre-1975
138	Stack #7	CF #7	CONV33	24" #1 Pulverizer Tank Belt Conveyor	200	Pre-1975
139	N/A	N/A (FE)	CONV34	24" #2 Pulverizer Tank Belt Conveyor	200	Pre-1975
140	Stack #27	CF #27	CONV51	24" 30 Mesh Loadout Conveyor	200	Pre-1975
141	Stack #40	CF #40	PACKR1	Packaging Machine for Whole Grain Sand	36	Pre-1975
Classification (10/15/30/40 Micron)						
107.1	Stack #42	CF #42	Microsizer #3	MS-20 Microsizer #3	25	2005
142.1	Stack #12	CF #12	AIRSI12	Airslide and #1 MS-20 Microsizer	85	1996
143.1	Stack #11	CF #11	AIRSI13	Airslide and #2 MS-20 Microsizer	85	1996
144	Stack #12	CF #12	Tailing Bins	Tailing Bins	130	Pre-1975
145	Stack #12	CF #12	PNEU2	#1 Macawber Pneumatic Pumping Station	15	1996

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device ¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
146.1	Stack #11	CF #11	PNEU4	#2 Macawber Pneumatic Pumping Station	15	1996
147	Stack #12	CF #12	BIN7	#1 & #2 Pump Feed Bins	15	Pre-1975
148	Stack #12	CF #12	#1 & #2 Pumps	#1 and #2 pneumatic pumps	15	1996
208.1	Stack #42	CF #42	PNEU1	#3 Macawber Pneumatic Pumping Station	15	2017
5 Micron Classification						
151.1	Stack #11	CF #11	ELEV16	5 Micron Feed Elevator (7S)	150	1996
152	Stack #37	CF #37	5 Micron Feed Bin	5 Micron Feed Bin (6S)	150	1996
153	N/A	N/A (FE)	AIRSE8 -16, 18 & 19	Air Separators (8 ea), and #18 and #19	20	1973
154	Stack #37	CF #37	ELEV17	5 Micron Return Elevator (8S)	150	1996
155	Stack #37	CF #37	BIN5	5 Micron Product Feed Bin (1S)	10	1996
156.1	Stack #38	CF #38	BIN4	Bulk Storage Loading Bin(2S)	10	1996
158.1	Stack #38	CF #38	PACKR7	"Stone Container" Bagger (5S)	15	1996
159.1	Stack #13	CF #13	ELEV23	PEMCO Elevator/FCP Tanks and Bulk Loadout Spout (3S1)	100	Pre 1983
160	Stack #20	CF #20	PACKR4	#2 Autobagger and Feed Bin	20	1981
161.1	Stack #20	CF #20	PACKR3	#1 Autobagger and Feed Bin	20	1981
162	Stack #34	CF #34	PACKR5 (1e & 2e)	Bulk Bagger and Feed Bin (1s and 2s)	15	1988
Limestone System						
	FP01	N/A (WS)	STOCK1	Stockpile	~21	2021
	E02	N/A (WS)	CRUSH1	Primary Crusher	~21	2021
	E04	N/A (WS)	CRUSH2	Secondary cone crusher	~21	2021
	E01	N/A (WS)	SCREN1	scalping screener	~21	2021
	E03	N/A (WS)	SCREN2	screener	~21	2021
	E05	N/A (WS)	SCREN3	screener	~21	2021
	TP01	N/A (WS)	TRUCK1	Front end loader feeding scalping screen	~21	2021
	TP02	N/A (WS)	FEEDER1	Screen feeding crusher	~21	2021
	TP03	N/A (WS)	CRUSH1	Crusher onto belt conveyor	~21	2021
	TP04	N/A (WS)	SCREN1	Belt conveyor feeding screener	~21	2021
	TP05	N/A (WS)	SCRENBC1	Conveyor from Screener	~21	2021
	TP06	N/A (WS)	SCRENBC2	Conveyor from Screener	~21	2021
	TP07	N/A (WS)	SCRENBC3	Conveyor from Screener	~21	2021
	TP08	N/A (WS)	STACKBC1	Conveyor belt transfer	~21	2021

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
	TP09	N/A (WS)	STACKBC2	Conveyor belt transfer	~21	2021
	TP10	N/A (WS)	CRUSH2	Conveyor belt Feeding Crusher	~21	2021
	TP11	N/A (WS)	CRUSHSCR1	Crushing Feeding Screener	~21	2021
	TP12	N/A (WS)	SCRENBC4	Conveyor from Screener	~21	2021
	TP13	N/A (WS)	SCRENBC5	Conveyor from Screener	~21	2021
	TP14	N/A (WS)	SCRENBC6	Conveyor from Screener	~21	2021
	TP15	N/A (WS)	SCRENBC7	Conveyor from Screener	~21	2021
Storage Structures						
157.1	Stack #38	CF #38	BIN4 SPOUT	Bulk Storage Loading Bin and Loadout Spout (2S)	10	1996
163.1	Stack #7	CF #7	Tank #7 & Tank #8	Storage Tanks #7 and Tank #8 at the New Screen Tower	150	Pre-1948
163.2	Stack #7	CF #7	Tank #15 & Tank #16	Storage Tank #15 and Tank #16 at New Screen Tower	150	Pre-1948
164.1	Stack #7	CF #7	Tanks #13 & #17	Storage tanks #13 and #17 at the New Screen Tower	150	Pre-1970
165	Stack #27	CF #27	Tanks #9 - #12	Storage tanks #9, #10, #11 & #12 at the New Screen Tower	150	Pre-1970
166.1	Stack #7	CF #7	Tanks #14 & #18	Storage tanks #14 and #18 at the New Screen Tower	150	Pre-1970
167	Stack #27	CF #27	Steel Tank #21	Steel Tank at the New Screen Tower	100	Pre-1970
168.1	Stack #13	CF #13	CGS Tank	CGS Tank	800	1998
169	Stack #13	CF #13	PEMCOTank	PEMCO Tank	250	Pre 1983
170	Stack #33	CF #33	Supersil Storage Silos #1 - #4 (1e-4e)	#1 through #4 Silos	125	1984
171	Stack #29	CF #29	MIN-U-SIL storage silo #5 (5e)	#5 Silo	125	1984
172.1	Stack #28	CF #28	MIN-U-SIL storage silos #6 & #7 (6e & E1)	#6 and #7 Silos	100	1984, 1999
172.2	Stack #28	CF #28	MIN-U-SIL storage silo #8 (6e & E1)	#8 Silo	100	1984, 1999
173.1	Stack #9	CF #9	ISTANK18	Concrete Tank at the Float Plant	25	Pre-1970
174	Stack #9	CF #9	Steel Storage Tank	Steel Tank at the Float Plant	25	Pre-1970
175	Stack #27	CF #27	SPOUT1	30 Mesh Loadout Spout (SPOUT1)	150	Pre-1970
176	Stack #27	CF #27	SPOUT2	Dry Sand Loadout Spout (SPOUT2)	150	Pre-1970
177.1	Stack #34	CF #34	SPOUT3	DCL Loadout Spout (SPOUT3)	200	Pre-1970
178	Stack #9	CF #9	SPOUT4	Float Plant Loadout Spout (SPOUT4)	150	Pre-1970
179	Stack #28	CF #28	SPOUT5	10 Micron Loadout Chute (SPOUT5)	150	Pre-1970
180.1	Stack #13	CF #13	SPOUT6	PEMCO/DCL Loadout System (SPOUT6)	250	Pre-1970
181	N/A	N/A (FE)	QROK SPOUTS	Q ROK Bulk Loading Spouts	150	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
203.1	N/A	N/A	#1 Stone Tank	#1 Stone Tank (Inside Building)	400	Before 1976
204.1	N/A	N/A	#2 Stone Tank	#2 Stone Tank (Inside Building)	400	Before 1976
Miscellaneous						
182	N/A	N/A	Roads	Unpaved Quarry Haul Roads, and Paved and Unpaved Plant Roadways	N/A	Pre-1970
N/A	N/A	N/A	Stockpile	Stockpile	N/A	Pre-1970
	N/A	N/A	Golf Sand Stockpile	Stockpile	N/A	Pre-1970
184	N/A	N/A	Float Sand Stockpile	Stockpile	N/A	Pre-1970
N/A	N/A	N/A	Quarry	Blasting Emissions	N/A	Pre-1970
Liquid Storage Tanks						
185	T1	N/A	Tank No. 1	Diesel Fuel Tank	10000	Before 1976
186	T2	N/A	Tank No. 2	Used Oil Tank at Maintenance garage	275	Before 1976
187	T3	N/A	Tank No. 3	Used Oil Tank at Maintenance garage	275	Before 1976
188	T4	N/A	Tank No. 4	#1 Oil Tank at Maintenance garage	275	Before 1976
189	T5	N/A	Tank No. 5	#2 Oil Tank at Maintenance garage	275	Before 1976
190	T6	N/A	Tank No. 6	#3 Oil Tank at Maintenance garage	275	Before 1976
191	T7	N/A	Tank No. 7	#4 Oil Tank at Maintenance garage	275	Before 1976
192	T8	N/A	Tank No. 8	Recycled Oil Tank near Float Plant	100000	1975
193	T11	N/A	Tank No. 11	Kerosene Tank at C & R Shop	275	1995
194	T12	N/A	Tank No. 12	Gasoline Tank at Office Building	1000	1995
195	T13	N/A	Tank No. 13	Lube Oil Tank at Secondary Crusher	300	Before 1976
196	T16	N/A	Tank No. 16	Recycled Oil	30000	2003
197	T17	N/A	Tank No. 17	Recycled Oil	30000	2003
198	T24	N/A	Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	275	Before 1976
199	T25	N/A	Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	60000	Before 1976
200	T26	N/A	Tank No. 26	Propane Tank at the Quarry	2000	1999
201	T27	N/A	Tank No. 27	Propane Tank at #6 Oil Building	1000	Before 1976
202	T28	N/A	Tank No. 28	Two Propane Tanks at the C&R Shop	1000	Before 1976
N/A	T29	N/A	Tank No. 29	Sodium Hydroxide Tank	8,200	Before 1976
N/A	T30	N/A	Tank No. 30	Sulfuric Acid Tank	6,000	Before 1976
N/A	T31	N/A	Tank No. 31	Floculent Tank	550	Before 1976
N/A	T32	N/A	Tank No. 32	Anti-foam Tank	2,500	Before 1976

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
N/A	T33	N/A	Tank No. 33	Promoter Tank	12,000	Before 1976

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

Notes:

Redlined rows have the revised information immediately below the redlined row with the corresponding process flow ID number and a decimal representing that this row's information has been revised.

Equipment design capacities are in units of tons per hour. Liquid Storage Tank design capacities are in units of gallons.

Abbreviations:

FE = Full Enclosure, PE = Partial Enclosure, BE = Building Enclosure, T = Tunnel or Underground, IMC = Inherent Moisture Content(1-5%), MC = Moisture Content, SS = Saturated Sand(60% moisture), WS = Water Spray, WT = Water Truck, MD = Minimized Drop Height, EL = Enclosed Loading Station, WSc = Wet Scrubber, CF = Cartridge Filter.

Attachment E

Emission Unit Forms

<i>Emission Unit Description</i>			
Emission unit ID number: VIBFD1, CRUSH2, CONV3, CONV2, CONV1, Reclaim Stockpile	Emission unit name: Primary Crushing Plant	List any control devices associated with this emission unit: CF #1	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Primary Crushing Plant (Stack #1) and associated fugitive emissions			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: Pre-1970	Installation date: Pre-1970	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1000 TPH			
Maximum Hourly Throughput: 1000	Maximum Annual Throughput: 8,760,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--

Particulate Matter (PM _{2.5})	--	0.727
Particulate Matter (PM ₁₀)	--	4.800
Total Particulate Matter (TSP)	--	12.874
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
ted Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Notes:

Allowable PM Stack Emissions (Type 'a' Source Operation)
 [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]
 Total emissions are for all units associated with Primary Crushing process.

Applicable Requirements

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

Applicable Requirements

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

Testing Requirements

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: VIBFD2, CONV4, CONV5, CRUSH3, CONV7, CONV6, CONV8	Emission unit name: Secondary Crushing Plant	List any control devices associated with this emission unit: WSc #2	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Secondary Crushing Plant (Stack #2) and associated fugitive emissions			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: Pre-1970	Installation date: Pre-1970	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 400			
Maximum Hourly Throughput: 400	Maximum Annual Throughput: 3,504,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--

Particulate Matter (PM _{2.5})	--	0.332
Particulate Matter (PM ₁₀)	--	2.190
Total Particulate Matter (TSP)	--	5.445
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
ted Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Notes:

Allowable PM Stack Emissions (Type 'a' Source Operation)
 [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]
 Total emissions are for all units associated with Secondary Crushing process.

Applicable Requirements

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

Applicable Requirements

The following scrubber pressure drop range obtained from stack test and historical data is an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: Wsc#2, Wet Scrubber: 1.5-7.0 (in H2O)

According to the CAM plan submitted, the pressure drop across the wet scrubber shall be measured continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Wsc#2]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

6.2.2. The wet scrubber Wsc#2 shall be observed daily during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions are observed, visible emissions evaluations in accordance with 45CSR§7A shall be conducted as soon as practicable, but no later than one week from the time of the observation. A visible emissions evaluations in accordance with 45CSR7A shall not be required under condition Section 6.2.2 if the visible emissions condition is corrected in a timely manner; the scrubber is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§30-5.1c] [Wsc#2]

Testing Requirements

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: CONV12, CONV13, CONV14, MILL1, CONV15, SCREN1, TANK2, WETSE1 - WETSE5, FERRO1, CLASS4&7, FCell, CONV54, MILL8, PIPE1, CONV18, CONV17, CONV19, CONV20 & CONV22, CONV21, CONV23, CONV24, V1BFD4, DRYER #1 (3s), CONV25, SCREN16	Emission unit name: Wet Processing Plant (Rod Mill Building)	List any control devices associated with this emission unit: WSc #3, CF#25	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Dryers - Fluid Bed Dryer (3S), Stack #3, Wet Processing Plant and associated fugitive emissions.			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: 1975	Installation date: 1975	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 200			
Maximum Hourly Throughput: 200	Maximum Annual Throughput: 1,752,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? Yes		If yes, is it? propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil	
Maximum design heat input and/or maximum horsepower rating: 71 MMBtu/hr (HHV)		Type and Btu/hr rating of burners: 71,000,000 Btu/hr (HHV)	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas & Propane	negligible	negligible	1020 BTU/scf
Recycled Fuel Oil	1.5 %	negligible	150,000 BTU/gal
Distillate Oils	1.5 %	negligible	150,000 BTU/gal
Residual Oils	0.2 %	0.05-0.1	140,000 BTU/gal

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	13.750
Nitrogen Oxides (NO _x)	--	96.350
Lead (Pb)	--	0.210
Particulate Matter (PM _{2.5})	--	76.559
Particulate Matter (PM ₁₀)	--	96.688
Total Particulate Matter (TSP)	--	98.781
Sulfur Dioxide (SO ₂)	--	267.000
Volatile Organic Compounds (VOC)	--	1.270
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All	--	2.185
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Notes:		
Total emissions are for all units associated with Wet Processing Plant.		
Max emissions of each fuel type for Dryer #1 for every specific pollutant to conservatively estimate PTE.		
<i>Applicable Requirements</i>		

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

Applicable Requirements

The Fluid Bed dryer (3S) and the Rotary dryer (8S) shall burn the following fuels: propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil. [45CSR13, R13-0715, A.2] [3S, 8S]

The following sulfur limits shall not be exceeded: #2 Fuel Oil shall have a maximum of 0.2% S by weight. #4, # 5 and #6 Fuel Oil and Recycled oil shall have a maximum of 1.5 % sulfur by weight. [45CSR13, R13-0715, A.3] [3S, 8S]

Combined emissions from the Fluid Bed Dryer (3S) and Rotary Dryer (8S) shall not exceed the following annual limitations in Tons per year (TPY):

Particulate Matter: 95.48

SO₂: 267.0

NO_x: 96.35

VOC: 1.27

CO: 13.75

[45CSR13, R13-0715, A.6] [3S, 8S]

The fuel rating of the recycled oil shall not exceed 150,000 BTU/gallon. [45CSR13, R13-0715, A.7] [3S, 8S]

The following conditions shall be followed by the permittee for the use of Recycled Oil as dryer fuel:

a. The registrant shall not receive, store, burn or fire any recycled oil which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1 & Recycled Oil specification provided by U.S.Silica). The burning of recycled oil that does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Permit.

Maximum Allowable Specification

Arsenic: <5.0 ppm

Cadmium: <2.0 ppm

Chromium:<10.0 ppm

Lead: <100.0 ppm

PCBs: <2.0 ppm

Total Halogen: <1000.0 ppm

Flash Point: >100.0 Degrees F

b. The registrant shall receive a chemical analysis with each shipment or delivery of recycled oil from the supplier or marketer. The analysis shall identify the name and address of the supplier or marketer, the supplier or marketer's USEPA Identification Number and the following used or recycled oil information:

Date of shipment or delivery

Quantity received

Arsenic content

Cadmium content

Chromium content

Lead content

PCB content

Total Halogen content

Flash point

Sulfur content

c. The Director or his or her duly authorized representative may conduct or require the permittee to conduct detailed chemical analyses of any used or recycled oil received, stored or fired in the dryer burner. [45CSR13, R13-0715,

A.9] [3S, 8S]

The permitted facility shall comply with all provisions of 45CSR10, provided that the permittee shall comply with any more stringent requirements as may be set forth under Sections 4.1.1 to 4.1.7, 4.2.1, 4.4.1 to 4.4.4 of the permit. The principal provisions of 45CSR10 are as follows:

§45-10-3.3 - Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(3.3.f) - For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

§45-10-3.4.a. - Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate based on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

§45-10-4.1. - No person shall cause, suffer, allow, or permit, the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.

§45-10-8.2.a. - At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this rule. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this rule. [45CSR13, R13-0715, B.4] [3S, 8S]

At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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§10-8.1a] [3S, 8S]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 45CSR§10-3. [45CSR§10-8.1b] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 45CSR§§10-3, 4 and 5 of this rule by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. [45CSR§10-8.2c] [3S, 8S]

Monitoring plans pursuant to subsection 45CSR§10-8.2.c shall be submitted to the Director within six (6) months of the effective date of this rule. Approval or denial of such plans shall be within twelve (12) months of the effective date of this rule. (Monitoring Plan approved on April 25, 2003. Compliance with terms and conditions of 45CSR13, R13-0715F assures compliance with 45CSR10 and 10A) [45CSR§10-8.2.c.2] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 45CSR§§10-3, 4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 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.

[45CSR§10-8.3.a.] [3S, 8S]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken. [45CSR§10-8.3.b.] [3S, 8S]

The following scrubber pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: 3S: 2.0 to 5.8 (in H₂O) 8S: 0.5 to 2.0 (in H₂O)

According to the CAM plan submitted, the pressure gauges on the scrubbers shall be operated continuously during operation of the dryers.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [3S, 8S]

5.1.6.2. In accordance with the requirements of 40CFR60, Subpart OOO, the maximum particulate (PM) emissions from air pollution control device CF#25 shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter). [45CSR13, R13-2015, A.2] [Stack # 25]

5.1.6.3. The maximum hourly and annual rate of sand to the Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1(SCREEN 16), shall not exceed 220.0 tons/hour and 1,927,200 tons/year. [45CSR13, R13-2015, A.3] [SCREEN16]

5.1.6.4. The Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1, shall be controlled at all times of operation with a cartridge filter, Control Equipment ID No. CF#25. [45CSR13, R13-2015, A.4] [CF#25]

5.1.6.5. The permittee shall operate the cartridge filter, Control Equipment ID No.CF#25, as outlined in Permit Application R13-2015. [45CSR13, R13-2015, A.5] [CF#25]

Permit Shield

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

Monitoring Requirements

Compliance with Section 3 of 45CSR7 shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the scrubber. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

Records shall be maintained on site reporting the results of each test. Said opacity evaluations of sources identified during the Method 22 survey shall only be conducted by an employee or contractor certified in 40CFR60 Appendix A, Method 9, Visible Emission observations. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule. [45CSR13, R13-0715, A.12] [3S, 8S]

The Fluid Bed Dryer and the Rotary dryer shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40C.F.R.Part 60 Appendix A, Method 22. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, visible emissions evaluations in accordance with 40C.F.R. 60

Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. However, a Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR13, R13-0715, A.13] [3S, 8S]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1.[45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 &42]

Testing Requirements

Tests that are required by the Director to determine compliance with the emission limitations set forth in 4.1.4 and 4.1.5 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 100% of the peak load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A. [45CSR13, R13-0715, B.7] [3S, 8S]

With regard to any testing required by the Director, the permittee shall submit to the Director of the division of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. [45CSR13, R13-0715, B.8] [3S, 8S]

Within 180 days of the permit approval, and once per permit term, the permittee shall conduct or have conducted test(s) on the fluid bed and rotary dryers to determine compliance with the Particulate Matter emission limitations as set forth in Sections 4.1.4 & 4.1.5 above. Such Test(s) shall be conducted in accordance with Sections 4.3.1 and 4.3.2 contained herein. The Director, or a duly authorized representative, may witness or conduct such tests. Should the Director exercise this option to conduct such test(s), the operator shall 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§30-5.1c] [3S, 8S]

Note: Rotary Dryer tested – 12-18-2012 (not operational since 2014), Fluid Bed Dryer tested – 08-02-2017.

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (MM01 & MM02) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

Records of quantity and type of fuel used, and the fuel sulfur content analysis shall be retained on-site by the permittee for at least five (5) years. [45CSR13, R13-0715, A.4] [3S, 8S]

Compliance with annual limitations of SO₂, NO_x, VOC and CO in Section 4.1.5 shall be demonstrated by recordkeeping of monthly fuel use reports and fuel usage limitations conforming to the following equations. Records will be maintained on-site for at least five years and shall be submitted to the Director upon request.

SO₂: $142 F_2 S_2 + 150 F_4 S_4 + 157 F_5 S_5 + 157 F_6 S_6 + 147 FR SR = 534,000$ lbs/yr of SO₂ NO_x

: $20 F_2 + 20 F_4 + 55 F_5 + 55 F_6 + 19 FR + 100N + 19 P = 192,700$ lbs/yr of NO_x

CO: $5 F_2 + 5 F_4 + 5 F_5 + 5 F_6 + 5 FR + 84 N + 3.2 P = 27,507$ lbs/yr of CO

VOC: $0.2 F_2 + 0.2 F_4 + 0.28 F_5 + 0.28 F_6 + 0.22 FR + 5.5 N + 0.3 P = 2,541$ lbs/yr of VOC

Where:

F₂ = #2 Fuel Oil use, in 1000 gallons, for last twelve month period

F₄ = #4 Fuel Oil use, in 1000 gallons, for last twelve month period

F₅ = #5 Fuel Oil use, in 1000 gallons, for last twelve month period

F₆ = #6 Fuel Oil use, in 1000 gallons, for last twelve month period

FR = Recycled Fuel Oil use, in 1000 gallons, for last twelve month period

P = Propane use, in 1000 gallons, for last twelve month period

N = Natural gas use, in million cubic feet of gas, for last twelve month period

S₂ = Weighted average sulfur content of all #2 Fuel Oil used in last twelve month period (by weight) S₄

= Weighted average sulfur content of all #4 Fuel Oil used in last twelve month period (by weight) S5 =
Weighted average sulfur content of all #5 Fuel Oil used in last twelve month period (by weight) S6 =
Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight) SR =
Weighted average sulfur content of all Recycled Oil used in last twelve month period (by weight)
[45CSR13, R13-0715, A.8] [3S, 8S]

Records of each shipment of recycled oil chemical analyses, quantity and type of fuel used, maximum fuel rating (BTU/gallon), and the fuel sulfur analysis shall be retained on-site by the permittee for at least five (5) years. The owner or operator shall keep record of quality control and quality assurance program for the fuel analysis. If a certified lab is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. The permittee will confirm the certified lab fuel analysis results by using an independent certified lab at least once in every six months to analyze the fuel. [45CSR13, R13-0715, A.10] [3S, 8S]

The permittee shall monitor and record the pressure drop across each scrubber (during operation) on a daily basis. These records shall be kept on site for a minimum of 5 years and made available to the Director or Authorized Representative upon request. [45CSR13, R13-0715, A.11] [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

Qualified personnel shall perform visual inspections of the scrubbers at least monthly and perform routine maintenance to assure proper operation of the scrubbers. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

General recordkeeping requirements.

(1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements.
[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [3S, 8S]

5.4.7. For the purpose of determining compliance with the emission limits as set forth in Sections 5.1.6.1 and 5.1.6.2, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2015, B.1] [Stack # 25]

5.4.8. For the purpose of determining compliance with the process weight rate limitations set forth in Section 5.1.6.3 the permittee shall maintain monthly and annual records on the processing rate of sand to the Trash Vibrating Screen. Compliance with the monthly and annual process weight rate limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the process weight rate at any given time for the previous twelve (12) consecutive months. Said records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S.Silica Company computerized Production Tracking Data System (PTDS)
[45CSR13, R13-2015, B.2] [SCREN16]

5.4.9. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.4, the permittee shall maintain certified annual records that contain at a minimum the following:
Hours of Operation when the Trash Vibrating Screen is operating without the required control device (Cartridge Filter). Said records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2015, B.3] [CF#25]

5.4.10. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.5, the permittee shall meet the following requirements for the control device CF#25:
a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.
b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

1. The cause of malfunction
2. Steps taken to:
 - correct the malfunction
 - minimize emissions during malfunction
3. The duration of the malfunction in hours.
4. The estimated increase in emissions during the malfunction.
5. Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2015, B.4] [CF#25]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2.
[45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [3S, 8S]

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

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

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

Emission Unit Description			
Emission unit ID number: Slurry Pumps, CYCLO4 & CYCLO5, FERRO2, CYCLO3, Drain Shed, CONV46, CONV47, CLASS5, Conditioner, Floatation, Vacuum Table, CONV48, CONV50, CONV49, DRYER #2 (8S), SCREW21, ELEV19, SCREN18 (1E), SCREW22, ELEV20, PACKR8 (1E)		Emission unit name: Wet Float Plant	
		List any control devices associated with this emission unit: WSc #8, CF #9	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Rotary Dryer (8S), Stack #8, Wet Float Plant, and associated fugitive emissions.			
Manufacturer: In House		Model number: NA	
		Serial number:	
Construction date: Pre-1970		Installation date: Pre-1970	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 25 TPH			
Maximum Hourly Throughput: 25		Maximum Annual Throughput: 219,000	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? Yes		If yes, is it? propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil	
Maximum design heat input and/or maximum horsepower rating: 17.1 MMBtu/hr		Type and Btu/hr rating of burners: 17,000,000 Btu/hr	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type		Max. Sulfur Content	
Propane		negligible	

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	13.750
Nitrogen Oxides (NO _x)	--	96.350
Lead (Pb)	--	0.000
Particulate Matter (PM _{2.5})	--	78.804
Particulate Matter (PM ₁₀)	--	98.610
Total Particulate Matter (TSP)	--	98.840
Sulfur Dioxide (SO ₂)		267.000
Volatile Organic Compounds (VOC)		1.270
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All	--	0.138
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). Notes: Total emissions are for all units associated with Wet Float Plant. Annual emission rate based on 8,760 hours of operation per year.		
<i>Applicable Requirements</i>		

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

Applicable Requirements

The Fluid Bed dryer (3S) and the Rotary dryer (8S) shall burn the following fuels: propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil. [45CSR13, R13-0715, A.2] [3S, 8S]

The following sulfur limits shall not be exceeded: #2 Fuel Oil shall have a maximum of 0.2% S by weight. #4, # 5 and #6 Fuel Oil and Recycled oil shall have a maximum of 1.5 % sulfur by weight. [45CSR13, R13-0715, A.3] [3S, 8S]

Combined emissions from the Fluid Bed Dryer (3S) and Rotary Dryer (8S) shall not exceed the following annual limitations in Tons per year (TPY):

Particulate Matter: 95.48

SO₂: 267.0

NO_x: 96.35

VOC: 1.27

CO: 13.75

[45CSR13, R13-0715, A.6] [3S, 8S]

The fuel rating of the recycled oil shall not exceed 150,000 BTU/gallon. [45CSR13, R13-0715, A.7] [3S, 8S]

The following conditions shall be followed by the permittee for the use of Recycled Oil as dryer fuel:

c. The registrant shall not receive, store, burn or fire any recycled oil which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1 & Recycled Oil specification provided by U.S.Silica). The burning of recycled oil that does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Permit.

Maximum Allowable Specification Arsenic: <5.0 ppm

Cadmium: <2.0 ppm Chromium:<10.0 ppm Lead: <100.0 ppm

PCBs: <2.0 ppm

Total Halogen: <1000.0 ppm Flash Point: >100.0 Degrees F

d. The registrant shall receive a chemical analysis with each shipment or delivery of recycled oil from the supplier or marketer. The analysis shall identify the name and address of the supplier or marketer, the supplier or marketer's USEPA Identification Number and the following used or recycled oil information:

xi. Date of shipment or delivery

xii. Quantity received

xiii. Arsenic content

xiv. Cadmium content

xv. Chromium content

xvi. Lead content

xvii. PCB content

xviii. Total Halogen content

xix. Flash point

xx. Sulfur content

c. The Director or his or her duly authorized representative may conduct or require the permittee to conduct detailed chemical analyses of any used or recycled oil received, stored or fired in the dryer burner. [45CSR13, R13-0715, A.9] [3S, 8S]

The permitted facility shall comply with all provisions of 45CSR10, provided that the permittee shall comply with any more stringent requirements as may be set forth under Sections 4.1.1 to 4.1.7, 4.2.1, 4.4.1 to 4.4.4 of the permit. The principal provisions of 45CSR10 are as follows:

§45-10-3.3 - Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV. No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(3.3.f) - For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

§45-10-3.4.a. - Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate based on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

§45-10-4.1. - No person shall cause, suffer, allow, or permit, the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.

§45-10-8.2.a. - At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this rule. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this rule. [45CSR13, R13-0715, B.4] [3S, 8S]

At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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§10-8.1a] [3S, 8S]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 45CSR§10-3. [45CSR§10-8.1b] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 45CSR§§10-3, 4 and 5 of this rule by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. [45CSR§10-8.2c] [3S, 8S]

Monitoring plans pursuant to subsection 45CSR§10-8.2.c shall be submitted to the Director within six (6) months of the effective date of this rule. Approval or denial of such plans shall be within twelve (12) months of the effective date of this rule. (Monitoring Plan approved on April 25, 2003. Compliance with terms and conditions of 45CSR13, R13-0715F assures compliance with 45CSR10 and 10A) [45CSR§10-8.2.c.2] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 45CSR§§10-3, 4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 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. [45CSR§10-8.3.a.] [3S, 8S]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken. [45CSR§10-8.3.b.] [3S, 8S]

The following scrubber pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ± 0.1 inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: 3S: 2.0 to 5.8 (in H₂O) 8S: 0.5 to 2.0 (in H₂O)

According to the CAM plan submitted, the pressure gauges on the scrubbers shall be operated continuously during operation of the dryers.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [3S, 8S]

5.1.9.1. The maximum hourly and annual processing rates of sand through the bulk sand bagger shall not exceed 30 TPH and 262,800 TPY, based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.1] [PACKR8]

5.1.9.2. The permittee shall operate the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C; Emission Point ID No. 1E - Stack #9), as outlined in Permit Application R13-2299.

[45CSR13, R13-2299, A.2] [Stack # 9]

5.1.9.3. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. 1E - Stack #9), shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams/dry standard meter).

[45CSR13, R13-2299, A.3; 40 C.F.R. § 60.672; 45CSR16] [Stack # 9]

Permit Shield

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

Monitoring Requirements

Compliance with Section 3 of 45CSR7 shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the scrubber. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

Records shall be maintained on site reporting the results of each test. Said opacity evaluations of sources identified during the Method 22 survey shall only be conducted by an employee or contractor certified in 40CFR60 Appendix A, Method 9, Visible Emission observations. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule. [45CSR13, R13-0715, A.12] [3S, 8S]

The Fluid Bed Dryer and the Rotary dryer shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40C.F.R.Part 60 Appendix A, Method 22. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, visible emissions evaluations in accordance with 40C.F.R. 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. However, a Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR13, R13-0715, A.13] [3S, 8S]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Testing Requirements

Tests that are required by the Director to determine compliance with the emission limitations set forth in 4.1.4 and 4.1.5 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 100% of the peak load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A. [45CSR13, R13-0715, B.7] [3S, 8S]

With regard to any testing required by the Director, the permittee shall submit to the Director of the division of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. [45CSR13, R13-0715, B.8] [3S, 8S]

Within 180 days of the permit approval, and once per permit term, the permittee shall conduct or have conducted test(s) on the fluid bed and rotary dryers to determine compliance with the Particulate Matter emission limitations as set forth in Sections 4.1.4 & 4.1.5 above. Such Test(s) shall be conducted in accordance with Sections 4.3.1 and 4.3.2 contained herein. The Director, or a duly authorized representative, may witness or conduct such tests. Should the Director exercise this option to conduct such test(s), the operator shall 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§30-5.1.c] [3S, 8S]

Note: Rotary Dryer tested – 12-18-2012 (not operational since 2014), Fluid Bed Dryer tested – 08-02-2017.

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (SM01) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

Records of quantity and type of fuel used, and the fuel sulfur content analysis shall be retained on-site by the permittee for at least five (5) years. [45CSR13, R13-0715, A.4] [3S, 8S]

Compliance with annual limitations of SO₂, NO_x, VOC and CO in Section 4.1.5 shall be demonstrated by recordkeeping of monthly fuel use reports and fuel usage limitations conforming to the following equations. Records will be maintained on-site for at least five years and shall be submitted to the Director upon request.

SO₂: $142 F_2 S_2 + 150 F_4 S_4 + 157 F_5 S_5 + 157 F_6 S_6 + 147 FR SR = 534,000 \text{ lbs/yr of SO}_2$

NO_x: $20 F_2 + 20 F_4 + 55 F_5 + 55 F_6 + 19 FR + 100N + 19 P = 192,700 \text{ lbs/yr of NO}_x$

CO: $5 F_2 + 5 F_4 + 5 F_5 + 5 F_6 + 5 FR + 84 N + 3.2 P = 27,507 \text{ lbs/yr of CO}$

VOC: $0.2 F_2 + 0.2 F_4 + 0.28 F_5 + 0.28 F_6 + 0.22 FR + 5.5 N + 0.3 P = 2,541 \text{ lbs/yr of VOC}$

Where:

F₂ = #2 Fuel Oil use, in 1000 gallons, for last twelve month period

F₄ = #4 Fuel Oil use, in 1000 gallons, for last twelve month period

F₅ = #5 Fuel Oil use, in 1000 gallons, for last twelve month period

F₆ = #6 Fuel Oil use, in 1000 gallons, for last twelve month period

FR = Recycled Fuel Oil use, in 1000 gallons, for last twelve month period

P = Propane use, in 1000 gallons, for last twelve month period

N = Natural gas use, in million cubic feet of gas, for last twelve month period

S₂ = Weighted average sulfur content of all #2 Fuel Oil used in last twelve month period (by weight)

S₄ = Weighted average sulfur content of all #4 Fuel Oil used in last twelve month period (by weight)

S₅ = Weighted average sulfur content of all #5 Fuel Oil used in last twelve month period (by weight)

S₆ = Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight)

Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight) SR =
Weighted average sulfur content of all Recycled Oil used in last twelve month period (by weight)
[45CSR13, R13-0715, A.8] [3S, 8S]

Records of each shipment of recycled oil chemical analyses, quantity and type of fuel used, maximum fuel rating (BTU/gallon), and the fuel sulfur analysis shall be retained on-site by the permittee for at least five (5) years. The owner or operator shall keep record of quality control and quality assurance program for the fuel analysis. If a certified lab is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. The permittee will confirm the certified lab fuel analysis results by using an independent certified lab at least once in every six months to analyze the fuel. [45CSR13, R13-0715, A.10] [3S, 8S]

The permittee shall monitor and record the pressure drop across each scrubber (during operation) on a daily basis. These records shall be kept on site for a minimum of 5 years and made available to the Director or Authorized Representative upon request. [45CSR13, R13-0715, A.11] [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

Qualified personnel shall perform visual inspections of the scrubbers at least monthly and perform routine maintenance to assure proper operation of the scrubbers. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

General recordkeeping requirements.

(1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [3S, 8S]

For the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C-CF#9):

a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request.

b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of 5 years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

- The cause of malfunction.
- Steps taken to:
 - correct the malfunction.
 - minimize emissions during malfunction.
- The duration of the malfunction in hours.
- The estimated increase in emissions during the malfunction.
- Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2423, B.5] [CF#9]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

General reporting requirements.

(3) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [3S, 8S]

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8.

Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

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

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

Emission Unit Description			
Emission unit ID number: MOB-CONV, BE-03, C Silo, SCREN17 (1E), BE01 (E2), BE02 (E2), LS01 (FE3), CONV26, CONV27, ELEV4, VIBFD5, CONV39-41, SCREN7-9 & SCREN14-15 (1E), CONV 30, CONV29, ELEV2, ELEV1, ELEV3, SCREN10-13 & SCREN2-4, CONV31, CONV32, CONV36, CONV37, CONV33, CONV34, CONV51, PACKR1		Emission unit name: Screening and Unground Sand Processing	
		List any control devices associated with this emission unit: CF #6, CF #7, CF #25, CF #27, CF#36, CF#40	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Screening and Unground Sand Processing and associated fugitive emissions.			
Manufacturer: N/A		Model number: N/A	
		Serial number: NA	
Construction date: Pre-1975		Installation date: Pre-1975	
		Modification date(s): 2012	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 200 TPH			
Maximum Hourly Throughput: 200		Maximum Annual Throughput: 1,752,000 TPY	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	13.436
Particulate Matter (PM ₁₀)	--	18.472
Total Particulate Matter (TSP)	--	22.048
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes: PM emissions from Stack #6 shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Compliance with the concentration limit in R30-06500001-2014 (MM01 & MM02) in 5.1.7.1.c. ensures compliance with 45CSR§7-4.1. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2 PM emissions from Stack #25 are based on PM not greater than 0.022 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Compliance with the concentration limit in R30-06500001-2014 (MM01 & MM02) 5.1.6.2.c. ensures compliance with 45CSR§7-4.1. PM emissions from Stack #36 are based on PM not greater than 0.14 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Total emissions are for all units associated with Screening and Unground Sand Processing.</p>		
<i>Applicable Requirements</i>		

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

Applicable Requirements

Visible emissions from Stack #6 shall not be greater than 7% opacity on a six minute average.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.1.b. ensures compliance with 45CSR§7-3.1.*

c. PM emissions from Stack #6 shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] *Compliance with the concentration limit in 5.1.7.1.c. ensures compliance with 45CSR§7-4.1.*

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

5.1.6.2. In accordance with the requirements of 40CFR60, Subpart OOO, the maximum particulate (PM) emissions from air pollution control device CF#25 shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter). [45CSR13, R13-2015, A.2] [Stack # 25]

5.1.6.3. The maximum hourly and annual rate of sand to the Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1(SCREEN 16), shall not exceed 220.0 tons/hour and 1,927,200 tons/year. [45CSR13, R13-2015, A.3] [SCREEN16]

5.1.6.4. The Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1, shall be controlled at all times of operation with a cartridge filter, Control Equipment ID No. CF#25. [45CSR13, R13-2015, A.4] [CF#25]

5.1.6.5. The permittee shall operate the cartridge filter, Control Equipment ID No. CF#25, as outlined in Permit Application R13-2015. [45CSR13, R13-2015, A.5] [CF#25]

5.1.7.2 The following conditions and requirements are specific to the five Rotex Screens:

a. The combined annual processing rate of the five Rotex Screens shall not exceed 3,285,000 tons of sand per year.

b. Fugitive visible emissions from Building #7 (location of the five Rotex Screens) shall not be greater than 10% opacity on a six minute average.

[45CSR16; 40 C.F.R. §60.672(b) & Table 3 of Subpart OOO; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.2.b. ensures compliance with 45CSR§7-3.1.*

c. PM emissions from Stack #36 shall not exhibit PM greater than 0.022 grains per dry standard cubic foot of exhaust.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16]

d. Visible emissions from Stack #36 shall not be greater than 7% opacity on a six minute average.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16] *Compliance with the opacity limit in 5.1.7.2.d. ensures compliance with 45CSR§7-3.1.*

[45CSR13, R13-2145, 4.1.2.] (Rotex Screens – 1S-5S)

5.1.7.3 Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-2145C (*i.e.*, CF #36 and CF #6) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13, R13-2145, 4.1.3.; 45CSR§13-5.11.]

7.1.1. The following conditions and requirements are specific to the Mobile Conveyor (MOB-CONV), Bucket Elevator (BE-03), and the Cristobalite Silo (C Silo):

The permittee shall meet the following fugitive emissions limit for Bucket Elevator (BE-03) and the transfer points on Mobile Conveyor (MOB-CONV), Cristobalite Silo (C Silo), enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671): 7 percent opacity

[45CSR16, 40CFR §60.672(b) and Table 3 to Subpart OOO of 40CFR60; 45CSR13, R13-2145, 5.1.1.]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1.[45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 &42]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1.

[45CSR§30-5.1c]

5.2.5. Once a quarter (every three months), the permittee shall conduct 30 minute visible emission inspections using U.S. EPA Method 22 (Appendix A-7 of Part 60) of Stack #6. The Method 22 observations shall be conducted while the dust collector 1C (dust collector for Stack #6) is operating. Such monitoring is deemed satisfactory if no visible emissions are detected during the Method 22 observations. If any visible emissions are detected, then the permittee must initiate corrective actions within twenty–four hours of the observation to bring the dust collector to normal operation. The date and time of every Method 22 observation inspection shall be recorded in accordance with Condition 3.4.2. and in the logbook in accordance with 40 C.F.R. §60.676(b). These records shall include any corrective actions taken. The permittee may elect to establish a different satisfactory (success) level for the visible emissions observations inspections by conducting PM performance test according to 40 C.F.R. §60.675(b) simultaneously with a Method 22 observation to determine what constitutes normal visible emission from Stack #6 when it is in compliance with the PM limit of Condition 5.1.7.1.c. These revised visible emissions satisfactory (success) level must be incorporated into the Facility’s Title V Operating Permit.

[45CSR13, R13-2145, 4.2.1.; 40 C.F.R. §60.674(c); 45CSR16]

7.2.1. The permittee shall maintain monthly and annual records on the processing rate of sand to the mobile conveyor and bucket elevator. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2 of this permit.

[45CSR13, R13-2145, 5.2.1.]

7.2.2. The permittee shall maintain records on the specific location of the Mobile Conveyor (MOB-CONV). Upon initial startup, these records shall include the date moved and a plot plan marking the location for each move. Such records shall be maintained in accordance with Condition 3.4.2 of this permit.

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

5.3.2. For demonstrating initial compliance with the visible emission standards of 5.1.7.1.b. and 5.1.7.1.d., the permittee shall conduct performance testing to determine the visible emissions from the point and fugitive emission sources associated with Q-Rok loading at the facility, which includes Stack #6, Bucket Elevators (BE01 & BE02) and the associated load out spout. Such testing shall be conducted in accordance with Method 9 of Appendix A-4 of 40CFR 60, and the procedures in 40 C.F.R. §60.11. and Condition 3.3.1 of this permit and the following additions:

- a. The minimum distance between the observer and the emission source shall be 15 feet. The observer shall, when possible, select a position that minimizes interference from other fugitive sources (e.g. road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR 60, Section 2.1.) must be followed.
- b. The duration of the Method 9 observations for demonstrating compliance with the fugitive emission limit must be 30 minutes (five 6-minute averages). Compliance with the limit in 5.1.7.1.d. shall be based on the average of five 6-minute averages.
- c. If a building/structure encloses the Bucket Elevators BE01 and BE02 and/or load out spout with the DSH system, the permittee shall conduct initial Method 9 observation of the building/structure to determine the compliance with fugitive emission limit of Condition 5.1.7.1.d. according to 40 C.F.R. 60 Subpart OOO and 40 C.F.R. §60.11. Such source must be operating while conducting the observations.

[40 C.F.R. §§60.675(c) and (d); 45CSR16; 45CSR13, R13-2145, 4.3.1.]

The permittee may use the following as alternatives to the reference methods and procedures listed in the above:

- a. If visible emissions from two or more facilities (affected sources) continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 - i. Use for the combined emission stream the highest fugitive opacity standard application to any of the individual affected contributing to the emission stream.
 - ii. Separate the emissions so that the opacity of emissions from each affected can be read.
- b. A single visible emission observer may conduct visible emissions observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:
 - i. No more than three emission points may be read concurrently.
 - ii. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
 - iii. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

c. The permittee may reduce the 30-day advance notification of performance test in 40 C.F.R. §§60.7(a)(6), 60.8(d) and 15-day notification of Condition 3.3.1.c. to a 7-day advance notification.

[40 C.F.R. §§60.675(e) and (g); 45CSR16; 45CSR13, R13-2145, 4.3.1.]

5.3.3. For demonstrating initial compliance with the PM emission limit of 5.1.7.1.c., the permittee shall conduct performance testing to determine the PM concentration rate from Stack #6. Such testing shall be conducted using Method 5 (Appendix A-3 of Part 60), Method 17 ((Appendix A-6) of Part 60), or Method 5I (Appendix A-3 of Part 60). If the exhaust velocity of Stack #6 is too low to measure accurately using the type S pilot tube as specified in EPA Method 2 (Appendix A-1 of Part 60), then the permittee may use the procedure outline in 40 C.F.R. §60.675(e)(4).

[45CSR13, R13-2145, 4.3.2.]

5.3.4. The initial performance testing as required in this section (condition 5.3.2. through 5.3.4.) shall be conducted within 60 days after achieving the maximum production rate of 150 tons per hour through the load out with the DSH system, but no later than 180 days after initial start-up of the load out with the DSH system.

[40 C.F.R. §§60.672(a) and (b); 45CSR16; 45CSR13, R13-2145, 4.3.3.]

5.3.5. The permittee shall repeat the performance testing as prescribed in Condition 5.3.2. for compliance with the fugitive emission standard of Condition 5.1.7.1.d. within 5 years from the previous performance test demonstrating compliance.

[40 C.F.R. §60.672(b) and Table 3 of 40 C.F.R. 60 Subpart OOO; 45CSR16; 45CSR13, R13-2145, 4.3.4.]

7.3.1. For demonstrating initial compliance with the visible emission limit of 7.1.1, the permittee shall demonstrate compliance by conducting:

a. An initial performance test according to 40 CFR §60.11 and 40 CFR §60.675; and

b. A repeat performance test according to 40 CFR §60.11 and 40 CFR §60.675 within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays.

[45CSR16, Table 3 to Subpart OOO of 40 CFR 60; 45CSR13, R13-2145, 5.3.1.]

7.3.2. Method 9 of Appendix A-4 of 40 CFR 60 and the procedures in 40 CFR §60.11 will be used to determine opacity, with the following additions:

a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet);

b. The observer shall, when possible, select a position that minimizes interference from other fugitive emissions sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR 60, Section 2.1) must be followed.

[45CSR16, 40 CFR §§60.675(b)(2) and (c)(1); 45CSR13, R13-2145, 5.3.2.]

7.3.3. When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR §§60.672(b) or 60.672(e)(1), the duration of the Method 9 (40 CFR 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in 7.1.1. must be based on the average of the five 6-minute averages.

[45CSR16, 40 CFR §60.675(c)(3); 45CSR13, R13-2145, 5.3.3.]

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (MM01 & MM02) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

5.4.5. The permittee shall maintain monthly and annual records on the processing rate of sand to the five (5) Rotex Screens. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2. of this permit.

[45CSR13, R13-2145, 4.2.2.] (Rotex Screens 1S – 5S)

5.4.6 **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of the current version of R13-2145, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2145, 4.4.2.] (CF #36, CF #6)

5.4.7. For the purpose of determining compliance with the emission limits as set forth in Sections 5.1.6.1 and 5.1.6.2, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2015, B.1] [Stack # 25]

5.4.8. For the purpose of determining compliance with the process weight rate limitations set forth in Section 5.1.6.3 the permittee shall maintain monthly and annual records on the processing rate of sand to the Trash Vibrating Screen. Compliance with the monthly and annual process weight rate limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the process weight rate at any given time for the previous twelve (12) consecutive months. Said records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S.Silica Company computerized Production Tracking Data System (PTDS)

[45CSR13, R13-2015, B.2] [SCREN16]

5.4.9. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.4, the permittee shall maintain certified annual records that contain at a minimum the following:

Hours of Operation when the Trash Vibrating Screen is operating without the required control device (Cartridge Filter).

Said records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2015, B.3] [CF#25]

5.4.10. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.5, the permittee shall meet the following requirements for the control device CF#25:

- a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.
- b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:
 1. The cause of malfunction
 2. Steps taken to:
 - correct the malfunction
 - minimize emissions during malfunction
 3. The duration of the malfunction in hours.
 4. The estimated increase in emissions during the malfunction.
 5. Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2015, B.4] [CF#25]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2.

[45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.15. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of the current version of R13-2145, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[40 C.F.R. §60.676(b)(1); 45CSR16; 45CSR13, R13-2145, 4.4.3.] (CF #36, CF #6)

7.4.1. The permittee shall maintain a record of each periodic inspection required under 40 CFR §60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). Keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request.

[45CSR16, 40 CFR §60.676(b)(1), 45CSR13, R13-2145, 5.4.1.]

7.4.2. The permittee shall maintain a record of each visible emissions observation, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or 45CSR7A, whichever is appropriate. The record will 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 will 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.

[45CSR7A, 45CSR13, R13-2145, 5.4.2.]

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

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

[45CSR13, R13-2145, 5.4.3.]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.5.3. The Director shall be notified of the initial start-up of Bucket Elevators BE01 & BE02 and the load out spout with the DSH system within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available. This notification supersedes the notification requirements of Condition 2.18. of the current version of R13-2145.

[45CSR13, R13-2145, 4.5.1.; 40 C.F.R. §§60.676(i)(1) and (k); 45CSR16]

5.5.4. The permittee shall report the results of any test conducted as required in conditions 5.3.2., 5.3.3., 5.3.4., and 5.3.5. of this permit to the Director within 60 days after completing such testing.

[45CSR13, R13-2145, 4.5.2.; 40 C.F.R. §§60.676(f) and (k); 45CSR16]

7.5.1. The Director shall be notified of the initial start-up of Mobile conveyor (MOB-CONV) and Bucket Elevator (BE-03) within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available.

[45CSR16, 40 CFR §60.676(i), 45CSR13, R13-2145, 5.5.1.]

7.5.2. The permittee shall report the results of any test conducted as required in Section 7.3. of this permit to the Director within 60 days after completing such testing.

[45CSR16, 40 CFR §60.676(f), 45CSR13, R13-2145, 5.5.2.]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(3) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: Pulverizer Tank #19, SCREW3, SCREW5, SCREW4, #1 Mill Feed Bin, #2 Mill Feed Bin, #3 Mill Feed Bin, #4 Mill Feed Bin, FEEDB1, FEEDB2, FEEDB3, FEEDB4, MILL2, MILL3, MILL4, MILL5, SCREW6, AIRSD7, SCREW7, AIRSD8, ELEV6, ELEV7, ELEV8, ELEV9, AIRSE1, AIRSE2, AIRSE3, AIRSE4, AIRSD9, SCREW16, SCREW17, ELEV14, Pulverizer Tank #20, #5 Mill Feed Bin, FEEDB5, MILL6, AIRSD2, ELEV10, AIRSE5, SCREW18, #6 Mill Feed Bin, FEEDB6, MILL7, AIRSD3, ELEV11, AIRSE6, SCREW19, BF1, ELEV 22, ELEV24, Screen21, AIRSD1, Airslide 100, AIRSD1-GENERIC, ELEV15, BIN2		Emission unit name: Milling Process	
		List any control devices associated with this emission unit: 1C, 2C, CF #15, CF #46, CF #47, CF #45, CF #27, CF #10, CF #11, CF #39, CF #12, CF #41	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Milling Process and associated fugitive emissions.			
Manufacturer: NA		Model number: NA	
Serial number: NA			
Construction date: 1981		Installation date: 1981	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 100			
Maximum Hourly Throughput: 100		Maximum Annual Throughput: 876,000 TPY	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.614
Particulate Matter (PM ₁₀)	--	4.057
Total Particulate Matter (TSP)	--	10.735
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes: Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2 Total emissions are for all units associated with Milling Process.</p>		
<i>Applicable Requirements</i>		

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

Applicable Requirements

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

The maximum quantity of material to be processed by the Microsizer #3 and Handling Equipment shall be limited to the following:

Airslide 100 (Stack #41): 8 TPH

[45CSR13, R13-2595 (Condition A.1) and PD10-027] [Stack # 42 & 41]

Maximum particulate matter emissions to the atmosphere shall not exceed the following:

Airslide 100: 0.15 PPH and 0.66 TPY

[45CSR13, R13-2595 (Condition A.2) and PD10-027] [Stack # 42 & 41]

The following fugitive dust control measures as specified in Permit Application R13-2595 shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Airslide 100,: Torit DFT2-4-155 Baghouse (2C) at 99.9%

[45CSR13, R13-2595 (Condition A.3) and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.10.4. The stabilized static pressure loss across baghouse 2C and CF#42 shall remain between 0.5 to 6.0 inches of water. [45CSR13, R13-2595 (Condition A.4) and PD10-027] [Baghouse 2C & CF#42; Stack # 42 & 41]

5.1.10.5. Except during startup and shutdown, opacity from baghouse 2C and Stack #42 shall not exceed 10 percent based on a six minute block average. In order to determine compliance with this limit the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for stacks #41 and #42. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading.

[45CSR13, R13-2595 (Condition A.5) and PD10-027] [Stack # 42 & 41]

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

X Permit Shield

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

Monitoring Requirements

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(5) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: Microsizer #3, AIRSI12, AIRSI13, Tailing Bins, PNEU2, PNEU4, BIN7, #1 & #2 Pumps, PNEU1, ELEV16, 5 Micron Feed Bin, AIRSE8 - 16, 18 &19, ELEV17, BIN5, BIN4, PACKR7, ELEV23, PACKR4, PACKR3, PACKR5 (1e & 2e)		Emission unit name: Micron Production	
List any control devices associated with this emission unit: CF #11, CF #12, CF #13, CF #20, CF #34, CF #37, CF #38, CF #42			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Classification (10/15/30/40 Micron), 5 Micron Classification, and associated fugitive emissions.			
Manufacturer: NA		Model number: NA	
Serial number: NA		Construction date: 1998	
Installation date: 1998		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 150 TPH			
Maximum Hourly Throughput: 150		Maximum Annual Throughput: 1,314,000 TPY	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.446
Particulate Matter (PM ₁₀)	--	1.072
Total Particulate Matter (TSP)	--	3.074
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Micron Production. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2</p>		
Applicable Requirements		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit with the condition number</u>. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”</p>		

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

5.1.3.1. The maximum process weight rate for the permitted facilities (Ground Sand Packaging/Loading) shall not exceed 10 tons per hour.

[45CSR13, R13-991] [Ground Sand Packaging/Loading]

5.1.3.2. The particulate emission rate for Emission point 1e {Bulk Bagger (PACKR5), Stack # 34} as defined in Permit application No. 991, shall not exceed 0.1 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 1e]

5.1.3.3. The particulate emission rate for Emission point 2e (Room Venting, Stack # 34), as defined in Permit application No. 991, shall not exceed 0.5 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 2e]

Note : In original construction, emission points 1e and 2e were controlled by separate baghouses. Bagothouses were replaced by one cartridge filter control device. PD ISSUED 5-16-94.

5.1.4.1. Emissions from Mikropul cartridge baghouse Model CFH-6-V-6"B" Emission point ID No. 37 (Stack # 37) and vented through Air Pollution Control Device ID No. 1C, shall not exceed 0.2 pounds of particulate matter per hour (lb./hr.).

[45CSR13, R13-1917, A.1] [Stack # 37]

5.1.4.2 The maximum amount of processed material charged into the feed bin (air pollution source 6S){5 Micron feed Bin}, return bucket elevator (top) (air pollution source 7S)[ELEV 16]and return bucket elevator (bottom) (air pollution source 8S) {ELEV 17}shall not exceed 37.5 tons per hour (TPH). [45CSR13, R13-1917, A.2] [6S, 7S, 8S]

5.1.4.3. Emissions from Mikropul Cartridge baghouse, Model CFH-6-V-12"B", Emission Point ID No. 38 (Stack # 38), and vented through Air Pollution Control Device ID No. 2C, shall not exceed 0.2 pounds of particulate matter per hour (lb/hr).

[45CSR13, R13-1917, A.3] [Stack # 38]

5.1.4.4. The maximum amount of processed material charged into the bulk storage bin (air pollution source 2S), product bin (air pollution source 1S) [Bin 5] , bulk loading spout (air pollution source 3S), the bagger bin (air pollution source 4S) [MIN-U-SIL Bagger bin], and stone container model 988 DM single spout bagger (air pollution source 5S) [PACKR7] shall not exceed 35.5 tons per hour (TPH).

[45CSR13, R13-1917, A.4] [1S to 5S]

The maximum quantity of material to be processed by the Microsizer #3 and Handling Equipment shall be limited to the following:

Airslide 100 (Stack #41): 8 TPH

[45CSR13, R13-2595 (Condition A.1) and PD10-027] [Stack # 42 & 41]

Maximum particulate matter emissions to the atmosphere shall not exceed the following:

Airslide 100: 0.15 PPH and 0.66 TPY

[45CSR13, R13-2595 (Condition A.2) and PD10-027] [Stack # 42 & 41]

The following fugitive dust control measures as specified in Permit Application R13-2595 shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Airslide 100,: Torit DFT2-4-155 Baghouse (2C) at 99.9%

[45CSR13, R13-2595 (Condition A.3) and PD10-027] [Bagothouses 2C & CF#42; Stack # 42 & 41]

5.1.10.4. The stabilized static pressure loss across baghouse 2C and CF#42 shall remain between 0.5 to 6.0 inches of water. [45CSR13, R13-2595 (Condition A.4) and PD10-027] [Bagothouse 2C & CF#42; Stack # 42 & 41]

5.1.10.5. Except during startup and shutdown, opacity from baghouse 2C and Stack #42 shall not exceed 10 percent based on a six minute block average. In order to determine compliance with this limit the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for stacks #41and #42. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible

emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading.

[45CSR13, R13-2595 (Condition A.5) and PD10-027] [Stack # 42 & 41]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.2.2. The permittee shall monitor and maintain records of daily observations of pressure drop across baghouses 2C and CF#42.

[45CSR13, R13-2595, B.9 and PD10-027] [Baghouses 2C & CF#42; Stack # 28, 29 & 41]

5.2.4. Maintenance records for the air pollution control devices listed in 5.1.10.3. shall be maintained on site for a period of five (5) years. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:

- a. The equipment involved in the malfunction and the associated cause.
- b. Steps taken to correct the malfunction.
- c. The steps taken to minimize the emissions during the malfunction.
- d. The duration of the malfunction.
- e. The increase in emissions during the malfunction.
- f. Steps taken to prevent a similar malfunction in the future.

[45CSR13, R13-2595, B.8 and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0"

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(7) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: BIN4 SPOUT, Tank #7 & Tank #8, Tank #15 & Tank #16, Tanks #13 & #17, Tanks #9 - #12, Tanks #14 & #18, Steel Tank #21, CGS Tank, PEMCOTank, Supersil Storage Silos #1 - #4 (1e-4e), MIN-U-SIL storage silo #5 (5e), MIN-U-SIL storage silos #6 & #7 (6e & E1), MIN-U-SIL storage silo #8 (6e & E1), ISTANK18, Steel Storage Tank, SPOUT1, SPOUT2, SPOUT3, SPOUT4, SPOUT5, SPOUT6, QROK SPOUTS, #1 Stone Tank, #2 Stone Tank		Emission unit name: Storage Structures	
		List any control devices associated with this emission unit: CF #7, CF #9, CF #13, CF #27, CF #28, CF #29, CF #33, CF #34, CF #38	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Storage Structures and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
		Serial number: NA	
Construction date: 1981		Installation date: 1981	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	3.608
Particulate Matter (PM ₁₀)	--	5.069
Total Particulate Matter (TSP)	--	6.260
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Storage Structures. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]</p>		
<p><i>Applicable Requirements</i></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (<i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>5.1.2. The following emission limits shall not be exceeded: Storage Silo #6: 0.05 PPH, Storage Silo #5: 0.05 PPH, Stack #33: 0.2 PPH [45CSR13, R13-750] [Stacks 28, 29 &33]</p> <p>5.1.3.1. The maximum process weight rate for the permitted facilities (Ground Sand Packaging/Loading) shall not exceed 10 tons per hour. [45CSR13, R13-991] [Ground Sand Packaging/Loading]</p>		

5.1.3.2. The particulate emission rate for Emission point 1e {Bulk Bagger (PACKR5), Stack # 34} as defined in Permit application No. 991, shall not exceed 0.1 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 1e]

5.1.3.3. The particulate emission rate for Emission point 2e (Room Venting, Stack # 34), as defined in Permit application No. 991, shall not exceed 0.5 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 2e]

Note : In original construction, emission points 1e and 2e were controlled by separate baghouses. Baghouses were replaced by one cartridge filter control device. PD ISSUED 5-16-94.

5.1.4.3. Emissions from Mikropul Cartridge baghouse, Model CFH-6-V-12"B", Emission Point ID No. 38 (Stack # 38), and vented through Air Pollution Control Device ID No. 2C, shall not exceed 0.2 pounds of particulate matter per hour (lb/hr).

[45CSR13, R13-1917, A.3] [Stack # 38]

5.1.4.4. The maximum amount of processed material charged into the bulk storage bin (air pollution source 2S), product bin (air pollution source 1S) [Bin 5] , bulk loading spout (air pollution source 3S), the bagger bin (air pollution source 4S) [MIN-U-SIL Bagger bin], and stone container model 988 DM single spout bagger (air pollution source 5S) [PACKR7] shall not exceed 35.5 tons per hour (TPH).

[45CSR13, R13-1917, A.4] [1S to 5S]

5.1.5. Particulate matter (PM) emissions shall not exceed the following hourly and annual emission limits: Stack #28: 0.70 PPH and 0.07 TPY

[45CSR13, R13-1970, A.1] [Stack # 28]

5.1.9.1. The maximum hourly and annual processing rates of sand through the bulk sand bagger shall not exceed 30 TPH and 262,800 TPY, based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.1] [PACKR8]

5.1.9.2. The permittee shall operate the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C; Emission Point ID No. 1E - Stack #9), as outlined in Permit Application R13-2299.

[45CSR13, R13-2299, A.2] [Stack # 9]

5.1.9.3. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. 1E - Stack #9), shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams/dry standard meter).

[45CSR13, R13-2299, A.3; 40 C.F.R. § 60.672; 45CSR16] [Stack # 9]

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0"

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

X Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.2.2. The permittee shall monitor and maintain records of daily observations of pressure drop across baghouses 2C and CF#42.

[45CSR13, R13-2595, B.9 and PD10-027] [Baghouses 2C & CF#42; Stack # 28, 29 & 41]

5.2.4. Maintenance records for the air pollution control devices listed in 5.1.10.3. shall be maintained on site for a period of five (5) years. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:

- a. The equipment involved in the malfunction and the associated cause.
- b. Steps taken to correct the malfunction.
- c. The steps taken to minimize the emissions during the malfunction.
- d. The duration of the malfunction.
- e. The increase in emissions during the malfunction.
- f. Steps taken to prevent a similar malfunction in the future.

[45CSR13, R13-2595, B.8 and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

For the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C-CF#9):

a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of these records shall

be made available to the Director or his duly authorized representative upon request.

b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of 5 years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

- The cause of malfunction.
- Steps taken to:
 - correct the malfunction.
 - minimize emissions during malfunction.
- The duration of the malfunction in hours.
- The estimated increase in emissions during the malfunction.
- Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2423, B.5] [CF#9]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8.

Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(9) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

(11) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: STOCK1, CRUSH1, CRUSH2, SCREN1, SCREN2, SCREN3. TRUCK1, FEEDER1, CRUSH1, SCREN1, SCRENBC1, SCRENBC2, SCRENBC3, STACKBC1, STACKBC2, CRUSH2, CRUSHSCR1, SCRENBC4, SCRENBC5, SCRENBC6, SCRENBC7		Emission unit name: Limestone System	
List any control devices associated with this emission unit: CF #7, CF #9, CF #13, CF #27, CF #28, CF #29, CF #33, CF #34, CF #38			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Limestone System and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
Serial number: NA		Construction date: 1981	
Installation date: 1981		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): ~21 TPH			
Maximum Hourly Throughput: ~21 TPH		Maximum Annual Throughput: 182,500 TPY	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.436
Particulate Matter (PM ₁₀)	--	9.563
Total Particulate Matter (TSP)	--	28.446
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Limestone System.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>4.1.1. In accordance with the information filed in Permit Application R13-3535, the equipment/processes identified under Section 1.0 Emission Units of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities and/or throughputs, and shall use the specified control devices.</p> <p>4.1.2. The maximum transfer rate of material through the crushers and screens shall not exceed hourly and annual throughput rates identified under Section 1.0 Emission Units of this permit. Said limits shall be based on a 12-month</p>		

rolling total.

4.1.3. The permitted facility shall comply with all applicable requirements of 45CSR§7 - “To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations,” provided that the facility shall comply with any more stringent requirements as may be set forth under section 4.1. of this permit. The pertinent sections of 45CSR§7 applicable to this facility include, but are not limited to, the following:

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

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

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

4.1.3.4. 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. The permitted facility shall comply with all applicable requirements of 45CSR§7, with the exception of any more stringent limitations set forth in Section 4.1. of this permit. [45CSR§7-5.1.]

4.1.3.5. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR§7-5.2.]

4.1.4. The facility is subject to 40 CFR 60 Subpart OOO, including but not limited to following:

4.1.4.1. Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart. [40CFR 60.670(a)(1)]

4.1.4.2. An affected facility under paragraph (a) of this section that commences construction, modification or reconstruction after August 31, 1983, is subject to the requirements of this part. [40CFR 60.670(e)]

4.1.4.3. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [40CFR 60.672(b)]

4.1.4.4. A crusher shall not discharge fugitive emissions into the atmosphere greater than 12 percent opacity; [40CFR§60.672(b)]

4.1.4.5. Fugitive emission from the transfer points on the belt conveyors shall not discharge fugitive emissions into the atmosphere greater than 7 percent opacity; [40CFR§60.672(b)]

4.1.5. Owners and Operators of Engines classified as Nonroad. Owners and operators of engines classified as nonroad must ensure that the engine does not remain at a location for more than 12 months, with location being any single site at a building, structure, facility or installation. [40CFR§1068.30]

A nonroad engine ceases to be a nonroad engine and becomes a new stationary engine if - (1) At any time, it meets the criteria specified in paragraph (2)(iii) in the definition of “nonroad engine”

in § 1068.30. For example, a portable generator engine ceases to be a nonroad engine if it is used or will be used in a single specific location for 12 months or longer. If we determine that an engine will be or has been used in a single specific location for 12 months or longer, it ceased to be a nonroad engine when it was placed in that location.

[40 CFR § 1068.31(e)(1)]

4.1.6. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.10.]

Permit Shield

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

Monitoring Requirements

4.2.1. For the purpose of determining compliance with the opacity limits of 40 CFR 60 Subpart OOO, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

a. The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

b. Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

4.2.2. The permittee shall install instrumentation to measure both volumetric flow rate and water pressure as supplied to the facility's water spray bars on a daily basis. At the beginning and end of each operating day, the water pressure and ambient temperature shall be recorded. At the end of each operating day, the tonnage of rock processed, the amount of water (measured in gallons) utilized that day, the number of hours of operation, and a description of the day's weather conditions shall be recorded. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.3. The permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The permittee must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). Such records shall be maintained in accordance with Condition 3.4.1. of this permit. [40CFR§§60.674(b)]

The permittee may combine the records as required in Condition 4.2.2. and records of these monthly inspections into one document or logbook.

Testing Requirements

4.3.1. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of equipment, the permittee shall conduct performance test(s) to demonstrate compliance with the visible emission standards in Condition 4.1.4. for the sources listed in Section 1.0 of this permit. Such testing conducted in accordance with the following. [40CFR§60.8(a)]

(a) Such testing shall be conducted in accordance with Condition 3.3.1. of this permit.

(b) Such testing shall be conducted while the piece is processing or handling stone equal to or greater than 90 percent its hourly throughput limit as listed in Section 1.0 or at the maximum throughput possible.

(c) Method 9 of Appendix A-4, 40 CFR 60 shall be used with the following additions;

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

[40CFR§§60.675(c)(1)(i)]

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40CFR60, Section 2.1) must be followed. [40CFR§§60.675(c)(1)(ii)]

(iii) At locations where water sprays are employed at, the water mist must not be confused with particulate matter emissions and is not be considered visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. [40CFR§§60.675(c)(1)(iii)]

(iv) Duration of the Method 9 Observation must be 30 minutes (five 6-minute observations). Compliance with the visible emission standard in Conditions 4.1.1.c. and f. must be based on the average of five 6-minute averages.

[40CFR§§60.675(c)(3)]

(v) If emissions from two or more affected sources continuously interfere so that the opacity from an individual affected facility cannot be read, either of the following procedures may be used:

1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [40CFR§§60.675(e)(1)(i)]

2. Separate the emissions so that the opacity of emissions from each affected facility can be read.

[40CFR§§60.675(e)(1)(ii)]

(vi) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

1. No more than three emission points may be read concurrently. [40CFR§§60.675(e)(2)(i)]

2. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. [40CFR§§60.675(e)(2)(ii)]

3. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

[40CFR§§60.675(e)(2)(iii)]

(d) During such testing, the permittee shall monitor and record the water pressure, flow rate of the water sprays, and the hourly throughput or process rate of the piece of equipment at which the observation is occurring. Such records shall include the water pressure and flow rate at the beginning and the at end of the last observation for the actual operation day. Such records shall be included in with the test results and maintained in accordance with Condition 3.4.1 of this permit.

Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

4.4.2. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. For the purpose of determining compliance with maximum throughput and operation limits set forth in 4.1.2., the applicant shall maintain certified daily and monthly records. An example form is included as Appendix C. Compliance will be determined on a 12- month rolling total. These records shall be maintained on-site for a period of five (5) years and be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

4.4.5. The permittee shall maintain records of all monitoring data required by Section 4.2.1 documenting the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A. Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

Reporting Requirements

4.5.1. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

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

4.5.3. The permittee shall submit written notification of the following items within the specified time frames to the Director:

A notification of the actual date of initial startup of an affected facility dated within 15 days after such date. [40CFR§60.7(3)]

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

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

Emission Unit Description			
Emission unit ID number: Roads, Stockpile, Golf Sand Stockpile, Float Sand Stockpile, Quarry		Emission unit name: Miscellaneous	
List any control devices associated with this emission unit:			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Miscellaneous sources and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
Serial number: NA			
Construction date: 1970		Installation date: 1970	
Modification date(s): NA			
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	15.716
Particulate Matter (PM ₁₀)	--	94.157
Total Particulate Matter (TSP)	--	343.939
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Miscellaneous Sources.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (<i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p>		
<p><input checked="" type="checkbox"/> Permit Shield</p>		

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

Monitoring Requirements

Testing Requirements

Recordkeeping Requirements

Reporting Requirements

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

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

Emission Unit Description			
Emission unit ID number: Tank No. 1 - Tank No. 8, Tank No. 11 - Tank No. 13, Tank No. 16, Tank No. 17, Tank No. 24 - Tank No. 33		Emission unit name: Miscellaneous	List any control devices associated with this emission unit:
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Liquid Storage Tank Emissions.			
Manufacturer: NA		Model number: NA	Serial number: NA
Construction date: Varies		Installation date: Varies	Modification date(s): NA
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	Maximum Operating Schedule: 8760 Hours/Year
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	--
Particulate Matter (PM ₁₀)	--	--
Total Particulate Matter (TSP)	--	--
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	0.018
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Liquid Storage Tank Sources.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p>		
<p><input checked="" type="checkbox"/> Permit Shield</p>		

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

Monitoring Requirements

Testing Requirements

Recordkeeping Requirements

Reporting Requirements

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

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

Attachment G

Air Pollution Control Device Forms

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #1	List all emission units associated with this control device. CRUSH2, CONV3, CONV2	
Manufacturer: Donaldson	Model number: Torit DF-T4-32	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.4-3.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification**

Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #2	List all emission units associated with this control device. CRUSH3	
Manufacturer: Sly	Model number: Impinjet 270	Installation date: Unknown

Type of Air Pollution Control Device:			
Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone	
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank	
Carbon Drum(s)	X	Other Wet Scrubber	Settling Chamber
Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator	
Thermal Incinerator	Flare	Other (describe	
Wet Plate Electrostatic Precipitator			

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 98%
PM10	99.99%	> 98%
PM2.5	99.99%	> 98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.5-7.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification**

Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #3	List all emission units associated with this control device. DRYER1 (3s)	
Manufacturer: Sly	Model number: Impinjet 1130	Installation date: Unknown

Type of Air Pollution Control Device:		
Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	Settling Chamber
Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
Thermal Incinerator	Flare	Other (describe
Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 98%
PM10	99.99%	> 98%
PM2.5	99.99%	> 98%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-5.8		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #6	List all emission units associated with this control device. VIBFD5, ELEV4, CONV39-41, CONV29, CONV30, BE01, BE02, LS01	
Manufacturer: Donaldson	Model number: Torit 2DFA - 155	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #7	List all emission units associated with this control device. SCREN10-13 & SCREN2-4, SCREN17 (1E), ELEV1, ELEV2, ELEV3, CONV31, CONV33, TANK#13 & #17, TANK #7 & #8, TANK #15 & #16, TANK #14 & #18	
Manufacturer: Donaldson	Model number: Torit DFT-32-SH	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 3.0-5.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #8	List all emission units associated with this control device. DRYER2 (8s)	
Manufacturer: In House	Model number: NA	Installation date: Unknown

Type of Air Pollution Control Device:		
Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
Carbon Drum(s)	X	Other Wet Scrubber
Catalytic Incinerator	Condenser	Settling Chamber
Thermal Incinerator	Flare	Dry Plate Electrostatic Precipitator
Wet Plate Electrostatic Precipitator		Other (describe)

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 90%
PM10	99.99%	> 90%
PM2.5	99.99%	> 90%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-2.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #9	List all emission units associated with this control device. SCREEN18 (1E), PACKR8 (IE), ELEV 19, ELEV20, ISTANK18, Steel Storage Tank, and SPOUT4	
Manufacturer: Donaldson	Model number: Torit 4DFT-32-155	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.5-4.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #10	List all emission units associated with this control device. SCREW3, #1 MILL FEED BIN, #2 MILL FEED BIN, FEEDB1, FEEDB2, SCREW6, AIRSD7, ELEV6, ELEV7	
Manufacturer: Mikropul	Model number: CFH 40T-20-B	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #11	List all emission units associated with this control device. SCREW5, #3 MILL FEED BINS, #4 MILL FEED BIN, FEEDB3, FEEDB4, SCREW7, AIRSD8, ELEV8, ELEV9, PNEU4, AIRSI13 and ELEV16	
Manufacturer: Donaldson	Model number: Torit DFT 4-48	Installation date: 3-15-2012

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #12	List all emission units associated with this control device. #5 MILL FEED BIN, FEEDB5, MILL6, ELEV10, #6 MILL FEED BIN, FEEDB6, AIRSD3, ELEV11, ELEV15, PNEU2, BIN7, #1 AND #2 PUMPS, AIRSI12, TAILING BINS	
Manufacturer: Mikropul	Model number: CFH 40T-20-B	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #13	List all emission units associated with this control device. ELEV23, CGS Tank, PEMCO Tank, SPOUT6	
Manufacturer: Donaldson	Model number: Torit DF-T3-24	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.8-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #15	List all emission units associated with this control device. ELEV25, FEEDB25, FEEDB26, SCREN25, BIN25, and PNEU25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1C	List all emission units associated with this control device. 1S, 2S, 3S, and 4S	
Manufacturer: Torit	Model number: DFT2-4-155	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes
If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).
If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device.
The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 2C	List all emission units associated with this control device. 5S	
Manufacturer: Mikropul Torit	Model number: 8204B Baghouse DF2DF4	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #45	List all emission units associated with this control device. AIRSE25	
Manufacturer: Ecutech	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #46	List all emission units associated with this control device. HOPPER25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #47	List all emission units associated with this control device. TANK25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #20	List all emission units associated with this control device. PACKR3 and PACKR4	
Manufacturer: Donaldson	Model number: Torit DF-T4-16	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.6-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #25	List all emission units associated with this control device. CONV25, SCREN16, CONV26, and CONV27	
Manufacturer: Donaldson	Model number: Torit DF-4DF-48	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.0-3.6		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #27	List all emission units associated with this control device. CONV51, PULVERIZER TANK #19, PULVERIZER TANK #20, TANKS #9-#12, STEEL TANK #21, SPOUT1, SPOUT2	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #28	List all emission units associated with this control device. MIN-U-SIL storage silos #6 & #7 (7e & E1), MIN-U-SIL Storage Silo #8 (63 & E1), SPOUT5	
Manufacturer: Donaldson	Model number: Torit DF-2D-F4	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.6-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #29	List all emission units associated with this control device. Minusil storage silo #5 (5e)	
Manufacturer: Micropul	Model number: CFH-18-20-VB	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-1.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #33	List all emission units associated with this control device. Supersil storage silos #1 - #4 (1e-4e)	
Manufacturer: Donaldson	Model number: Torit DF-T4-16	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.4-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #34	List all emission units associated with this control device. PACKR5 (1e & 2e), SPOUT3	
Manufacturer: Donaldson	Model number: Torit DF-2DF-4	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #36	List all emission units associated with this control device. SCREN 7-9 and 14-15 (1E)	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-2.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #37	List all emission units associated with this control device. 5 Micron Feed Bin, ELEV17, and BIN5	
Manufacturer: Micropul	Model number: CFH-8-20	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.5-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #38	List all emission units associated with this control device. BIN4, BIN 4 SPOUT, and PACKR7	
Manufacturer: Micropul	Model number: CFH-18-20-VB	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #39	List all emission units associated with this control device. ELEV14	
Manufacturer: Micropul	Model number: CFH 8-20-V	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.0-3.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #40	List all emission units associated with this control device. PACKR1	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.75-2.2		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

Control device ID number: CF #41	List all emission units associated with this control device. BF1, Screen 21, ELEV22, ELEV24, AIRSD1, Airslide 100	
Manufacturer: Donaldson	Model number: DFT2-4-155	Installation date: Unknown

Type of Air Pollution Control Device:		
<input checked="" type="checkbox"/> Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
Thermal Incinerator	Flare	Other (describe
Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Control device ID number: CF #42	List all emission units associated with this control device. #3 Microsizer, PNEU1	
Manufacturer: Donaldson	Model number: DFT2-4-155	Installation date: Unknown

Type of Air Pollution Control Device:

X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.5-5.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014).

If No, **Provide justification**

Attachment H

Compliance Assurance Monitoring (CAM) Forms

All PSEUs and/or associated control devices were addressed in previous Title V renewal applications. No changes to the prior CAM forms and plan are necessary.

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*):

YES NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
- e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.

INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU In order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
CF #11	Mill Processing control device	Particulate matter, PM-10	Dry filter dust collector	Allowable PM Stack Emissions: 37 lb/hr [45CSR§7-4.1] [Stack 11]	Differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: CF #11	4b) Pollutant: PM-10	4c) ^a Indicator No. 1: Differential pressure	4d) ^a Indicator No. 2: Visible emissions
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Differential pressure	Visible emissions using 40 CFR Part 60, Appendix A, Method 22
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		0.5 to 6.0 (in wc)	No visible emissions for more than six minutes.
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Equipment: Differential pressure Gauge. Monitoring location: Across inlet and outlet ducts.	In accordance with the monitoring requirements identified under Method 22.
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		NA	NA
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Calibrate, maintain, and operate instruments using procedures that take into account manufacturer's recommendations.	Calibrate, maintain, and operate instruments using procedures that take into account manufacturer's recommendations.
^d Provide the <u>MONITORING FREQUENCY</u> :		Once per day	At least each calendar week during periods of normal facility operation
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Operators log data manually	Observers complete opacity or VE observation forms and log into binder.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		Once per day	The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen minute period.

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
CF #11

6b) Regulated Air Pollutant:
PM-10

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

Pressure differential: Decreases in pressure differential would indicate increases in gas flow or poor distribution across the filter media; increases in pressure differential would indicate filter clogging or decreased gas flow from sources.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

Engineering judgment, historical plant records of pressure differential as a maintenance indicator, and manufacturer's specifications.

Potential to Emit Calculations

Input Data

Company Name: U.S. Silica
 Site Name: Berkeley Springs Plant
 Project: Potential to Emit Calculations

Input for Material Transfer, Screening, and Crushing Calculations

Process	Activity	Throughput * (tons/hour)	Control Method	Title V ID
Primary Crushing	Truck Unloading - Fragmented Stone	1,000	None	VIBFD1
Primary Crushing	Primary Crushing (Jaw) - Dry	800	Fabric Filter - No Enclosure	CRUSH2
Primary Crushing	Conveyor Transfer - Dry	800	Fabric Filter	CONV3
Primary Crushing	Conveyor Transfer - Dry	800	Fabric Filter	CONV2
Primary Crushing	Conveyor Transfer - Dry	800	None	CONV1
Primary Crushing	Conveyor Transfer - Dry	800	Partial Enclosure (skirt)	Reclaim Stockpile
Secondary Crushing	Conveyor Transfer - Dry	400	Partial Enclosure (skirt)	VIBFD2
Secondary Crushing	Conveyor Transfer - Dry	400	Partial Enclosure	CONV4
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV5
Secondary Crushing	Secondary Crushing (All) - Dry	400	Wet Scrubber	CRUSH3
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV7
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV6
Storage Structures	Conveyor Transfer - Dry	400	Enclosed by Building	#1 Stone Tank
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV8
Storage Structures	Conveyor Transfer - Dry	400	Enclosed by Building	#2 Stone Tank
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV12
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV13
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV14
Wet Processing Plant	Fines Crushing (All) - Wet Suppression	200	Full Enclosure (boot)	MILL1
Wet Processing Plant	Conveyor Transfer - Wet Suppression	150	Saturated Material (No Visible Emissions)	CONV15
Wet Processing Plant	Screening (All) - Wet Suppression	200	Full Enclosure (boot)	SCREN1
Wet Processing Plant	Screening (All) - Wet Suppression	200	Saturated Material (No Visible Emissions)	CLASS4&7
Wet Processing Plant	Screening (All) - Wet Suppression	200	Saturated Material (No Visible Emissions)	FERRO1
Wet Processing Plant	Screening (All) - Wet Suppression	160	Saturated Material (No Visible Emissions)	FCell
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	None	TANK2
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Saturated Material (No Visible Emissions)	PIPE1
Wet Processing Plant	Screening (All) - Wet Suppression	200	Full Enclosure (boot)	WETSE1 - WETSE5
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV17
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Saturated Material (No Visible Emissions)	CONV18
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV19
Miscellaneous	Conveyor Transfer - Wet Suppression	200	Enclosed by Building	Stockpile
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV21
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV23
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV20 & CONV22
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	None	VIBFD4
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV24
Wet Processing Plant	Conveyor Transfer - Dry	200	Wet Scrubber	DRYER #1 (3s)
Wet Processing Plant	Screening (All) - Dry	200	Fabric Filter	SCREN16
Wet Processing Plant	Conveyor Transfer - Dry	200	Fabric Filter	CONV25
Wet Processing Plant	Conveyor Transfer - Dry	50	Full Enclosure (boot)	CONV54
Wet Processing Plant	Fines Crushing (All) - Dry	50	Full Enclosure (boot)	MILL8
Wet Float Plant	Conveyor Transfer - Dry	25	Saturated Material (No Visible Emissions)	Slurry Pumps
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CYCL04 & CYCL05
Wet Float Plant	Screening (All) - Wet Suppression	25	Saturated Material (No Visible Emissions)	FERRO2
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CYCL03
Wet Float Plant	Screening (All) - Wet Suppression	25	Enclosed by Building	CLASS5
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	Conditioner
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	Floatation
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	None	Vacuum Table
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	SCREW21
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV48
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	Drain Shed
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV50
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV49
Wet Float Plant	Conveyor Transfer - Dry	25	Wet Scrubber	DRYER #2 (8S)
Wet Float Plant	Conveyor Transfer - Dry	25	Enclosed by Building	SCREW22
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ELEV19
Wet Float Plant	Screening (All) - Dry	50	Fabric Filter	SCREN18 (1E)
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ELEV20
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ISTANK18
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	Steel Storage Tank
Wet Float Plant	Conveyor Transfer - Dry	30	Fabric Filter	PACKR8 (1E)
Wet Float Plant	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT4
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CONV46
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CONV47
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV26
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV27
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	ELEV4
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	VIBFD5
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV39-41
Screening and Unground Sanding Processing	Screening (All) - Dry	375	Fabric Filter	SCREN7-9 & SCREN14-15 (1E)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	30	Fabric Filter	CONV30
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	30	Fabric Filter	ELEV2

Input Data

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	ELEV3
Screening and Unground Sanding Processing	Screening (All) - Dry	75	Fabric Filter	SCREN10-13 & SCREN2-4
Screening and Unground Sanding Processing	Screening (All) - Dry	50	Fabric Filter	SCREN17 (1E)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV33
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	None	CONV34
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	125	Fabric Filter	CONV29
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	ELEV1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	CONV31
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	CONV32
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tanks #9 - #12
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #7 & #8
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #15 & #16
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #13 & #17
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #14 & #18
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	110	Full Enclosure (boot)	CONV36
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	110	Full Enclosure (boot)	CONV37
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	100	Fabric Filter - Partial Enclosure	Steel Tank #21
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Full Enclosure (boot)	QROK SPOUTS
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter	BE01 (E2)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter	BE02 (E2)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	LS01 (FE3)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	36	Fabric Filter	PACKR1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV51
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT2
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	300	Full Enclosure (boot)	MOB-CONV
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	100	Full Enclosure (boot)	BE-03
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Full Enclosure (boot)	C Silo
Milling	Conveyor Transfer - Dry	150	Fabric Filter	Pulverizer Tank #19
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#1 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#2 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB1
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB2
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL2
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL3
Milling	Conveyor Transfer - Dry	100	Fabric Filter	SCREW6
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD7
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV6
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV7
Milling	Conveyor Transfer - Dry	30	Fabric Filter	SCREW3
Milling	Conveyor Transfer - Dry	30	Fabric Filter	SCREW5
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#3 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#4 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB3
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB4
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL4
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL5
Milling	Conveyor Transfer - Dry	100	Fabric Filter	SCREW7
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD8
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV8
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV9
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW16
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW17
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE3
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE4
Milling	Conveyor Transfer - Dry	30	Full Enclosure (boot)	SCREW4
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE1
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE2
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD9
Milling	Conveyor Transfer - Dry	150	Fabric Filter	Pulverizer Tank # 20
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#5 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#6 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB5
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB6
Milling	Fines Crushing (All) - Dry	100	Fabric Filter	MILL6
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL7
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD2
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD3
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV10
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV11
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE5
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE6
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW18
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW19
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD1
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV 22
Milling	Conveyor Transfer - Dry	8	Fabric Filter	Airslide 100
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV24
Milling	Fines Screening (All) - Dry	25	Fabric Filter	Screen21
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD1-GENERIC
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV15
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	BIN2
Milling	Conveyor Transfer - Dry	20	Fabric Filter	BF1
Milling	Screening (All) - Dry	25	Fabric Filter	Microsizer #3
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU1
Milling	Fines Screening (All) - Dry	85	Fabric Filter	AIRSD12
Milling	Fines Screening (All) - Dry	85	Fabric Filter	AIRSD13
Milling	Conveyor Transfer - Dry	130	Fabric Filter	Tailing Bins
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU2
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU4
Milling	Conveyor Transfer - Dry	15	Fabric Filter	#1 & #2 Pumps
Milling	Conveyor Transfer - Dry	15	Fabric Filter	BIN7
Micron Production	Conveyor Transfer - Dry	10	Fabric Filter	BIN4

Input Data

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	5 Micron Feed Bin
Micron Production	Fines Screening (All) - Dry	20	Full Enclosure (boot)	AIRSEB-16, 18 &19
Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	ELEV17
Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	ELEV16
Micron Production	Conveyor Transfer - Dry	10	Fabric Filter	BIN5
Storage Structures	Conveyor Transfer - Dry	10	Fabric Filter - Partial Enclosure	BIN4 SPOUT
Micron Production	Conveyor Transfer - Dry	15	Fabric Filter	PACKR7
Milling	Conveyor Transfer - Dry	150	Fabric Filter	ELEV14
Storage Structures	Conveyor Transfer - Dry	125	Fabric Filter	Supersil Storage Silos #1 - #4 (1e-4e)
Storage Structures	Conveyor Transfer - Dry	100	Fabric Filter	MIN-U-SIL storage silo #8 (6e & F1)
Storage Structures	Conveyor Transfer - Dry	125	Fabric Filter	MIN-U-SIL storage silo #5 (5e)
Storage Structures	Conveyor Transfer - Dry	100	Fabric Filter	MIN-U-SIL storage silos #6 & #7 (6e & F1)
Micron Production	Conveyor Transfer - Dry	20	Fabric Filter	PACKR3
Micron Production	Conveyor Transfer - Dry	20	Fabric Filter	PACKR4
Storage Structures	Conveyor Transfer - Dry	200	Fabric Filter - Partial Enclosure	SPOUT3
Micron Production	Conveyor Transfer - Dry	15	Fabric Filter	PACKR5 (1e & 2e)
Storage Structures	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT5
Micron Production	Conveyor Transfer - Dry	100	Fabric Filter	ELEV23
Storage Structures	Conveyor Transfer - Dry	800	Fabric Filter	CGS Tank
Storage Structures	Conveyor Transfer - Dry	250	Fabric Filter	PEMCOtank
Storage Structures	Conveyor Transfer - Dry	250	Fabric Filter - Partial Enclosure	SPOUT6
Miscellaneous	Drilling	1,000	None	
Miscellaneous	Truck Loading - Crushed Stone	1,000	None	

A. Throughputs based on TVOP Application Forms
 B. Control methods and release points from Title V permit and Process Flow Diagram provided by US Silica.

Input for Limestone System

Process	Process Unit Description	Throughput ^A (tons/year)
Limestone	1 - Crushing	4,380,000
Limestone	2 - Screening	4,380,000
Limestone	3 - Transfer Points	4,380,000
Limestone	4 - Stockpiles	4,380,000
Limestone	5 - Unpaved Haul Roads	

Input for Baghouse Calculations

Process Unit Description	Flowrate ^A (dscfm)	Outlet Grain Loading ^B (gr/dscft)	Annual Hours of Operation ^C (hrs/year)	MMDSF per Year
Fluid Bed Dryer & Rotary Dryer			8,760	
Screening and Underground Sanding Processing CF#40	5,500	0.014	8,760	2891
Screening and Underground Sanding Processing CF#6	20,000	0.014	8,760	10512

Fluid Bed Dryer
 Dust Collector #40
 Dust Collector #6

A. Flowrates based on make and model specifications.
 B. Outlet grain loading from TVOP Outlet Grain Loading Limits
 C. Annual hours of operation are assumed to be 8,760 hr/yr.

Input for Unpaved Road Emission Calculations

Vehicle Type	Product Handled	Weight Empty ^A (tons)	Weight Full ^B (tons)
Haul Trucks/Trucks	Quarried material	68	158

A. Truck weight when empty from specification sheet for Euclid R858 haul truck
 B. Truck weight when loaded from specification sheet for Euclid R858 haul truck

Title V ID	Source Description	Trip Description	Vehicle Type	Product Handled	Annual Throughput ^A (tons/year)	Roundtrip Length ^B (miles/trip)
Roads	Facility Roadways	Unpaved Haul Roads	Haul Trucks/Trucks	Quarried material	8,760,000	2.00
Roads	Facility Roadways	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	8,760,000	1.00
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	4,380,000	0.40

A. Annual throughput based on maximum quarry throughput.
 B. Average round trip length estimate provided by U.S. Silica. Assumed 2 miles of total trip on haul roads and 1 mile of total trip on unpaved plant roads.

Input for Combustion Emission Calculations

Title V ID	Source Description	Process Unit Description	Fuel Type ^A	Fuel Heating Value (MMBtu/MMSCF or MMBtu/1,000 gal)	Propane Throughput ^C (1,000 gallons/yr)	Natural Gas Throughput ^C (MMSCF/yr)	Fuel Oil Throughput ^C (1,000 gal/yr)
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	150.00			4,146.40
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	150.00			4,146.40
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	91.50			6,797.38
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	140.00			4,442.57
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	1,020.00		609.76	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	91.50	1,637.11		

A. Fuel types provided by U.S. Silica
 B. Higher heating values based on AP-42 conversion factors where not specified in permit.
 C. Annual consumption of each fuel type assumed to be max fuel consumption operating at 8760 hr/yr.

Fuel Type	Sulfur Content in Fuel (%)	Reference	Ash Content in Fuel (%)	Reference	Density (lb/gal)
Recycled Oil	1.5	TVOP Limit	0	U.S. Silica Records	7.351
No. 2 Fuel Oil	0.2	TVOP Limit	0	Replace with site data when available.	-
No. 6 Fuel Oil	1.5	TVOP Limit	0	Replace with site data when available.	-

A. Fuel ash content based on U.S. Silica records and a 20% compliance margin.

Input for Permitted Limit Emission Calculations

Title V ID	Emission Factor ^{A,B}			Input Data	
	Value	Units	Pollutant	Value	Units
Material Transfer/Conveying	1	lb/hr	PM	8,760	hrs/year
Material Transfer/Conveying	1	lb/hr	PM10	8,760	hrs/year
Material Transfer/Conveying	0.8	lb/hr	PM2.5	8,760	hrs/year
Screening	0.685	lb/hr	PM	8,760	hrs/year
Screening	0.685	lb/hr	PM10	8,760	hrs/year
Screening	0.548	lb/hr	PM2.5	8,760	hrs/year
Bulk Load and BFS Bagger	0.685	lb/hr	PM	8,760	hrs/year
Bulk Load and BFS Bagger	0.685	lb/hr	PM10	8,760	hrs/year
Bulk Load and BFS Bagger	0.548	lb/hr	PM2.5	8,760	hrs/year
Bulk Bagger	0.1	lb/hr	PM	8,760	hrs/year
Bulk Bagger	0.1	lb/hr	PM10	8,760	hrs/year
Bulk Bagger	0.08	lb/hr	PM2.5	8,760	hrs/year
#6 Silo	0.05	lb/hr	PM	8,760	hrs/year
#6 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#6 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#7/#8 Silo	0.70	lb/hr	PM	8,760	hrs/year
#7/#8 Silo	0.70	lb/hr	PM10	8,760	hrs/year
#7/#8 Silo	0.56	lb/hr	PM2.5	8,760	hrs/year
#5 Silo	0.05	lb/hr	PM	8,760	hrs/year
#5 Silo	0.05	lb/hr	PM10	8,760	hrs/year

Input Data

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

#5 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#4 Silo	0.05	lb/hr	PM	8,760	hrs/year
#4 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#4 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#3 Silo	0.05	lb/hr	PM	8,760	hrs/year
#3 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#3 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#2 Silo	0.05	lb/hr	PM	8,760	hrs/year
#2 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#2 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#1 Silo	0.05	lb/hr	PM	8,760	hrs/year
#1 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#1 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year

A. Emission factors from Title V permit.
 B. Assume PM₁₀ emissions = PM emissions. PM_{2.5} emission factors assumed to be 80% of PM₁₀ emission factors.

Input for Stockpile Emission Calculations

Title V ID	Stockpile Area ^A (acres)	Number of Active Days per Year ^B (days/year)	Control Method
Golf Sand Stockpile & Float Sand Stockpile	5.63	365	None
Reclaim Stockpile	1,386	365	Partial Enclosure (skirt)

A. Assumed same stockpile area that was reported for Reporting Year 2016. Reclaim stockpile area estimated from Google Earth.
 B. Active stockpiles are those piles that have at least 8 hours of activity per 24 hours.

Input for Blasting Emission Calculations

Title V ID	Amount of Material Removed per Blast ^A (tons)	Total Amount Removed ^B (tons)	Control Method	Horizontal Area Removed per Blast ^C (ft ²)	Number of Blasts per Year ^C
Quarry	171,765	8,760,000	None	5978.82	51

A. Horizontal area removed per blast from U.S. Silica data
 B. Total amount of material removed assumed to be maximum potential material processed downstream.
 C. Number of blasts per year from 2022 Blast Records and 20% compliance margin.

Input for Tank Emission Calculations

Process	Capacity (gallons)	Material	Title V ID
Diesel Fuel Tank	10,000	Diesel	Tank No. 1
Used Oil Tank at Maintenance garage	275	Used Oil	Tank No. 2
Used Oil Tank at Maintenance garage	275	Used Oil	Tank No. 3
#1 Oil Tank at Maintenance garage	275	Oil	Tank No. 4
#2 Oil Tank at Maintenance garage	275	Oil	Tank No. 5
#3 Oil Tank at Maintenance garage	275	Oil	Tank No. 6
#4 Oil Tank at Maintenance garage	275	Oil	Tank No. 7
Recycled Oil Tank near Float Plant	10,000	Recycled Oil	Tank No. 8
Kerosene Tank at C & R Shop	275	Kerosene	Tank No. 11
Gasoline Tank at Office Building	1,000	Gasoline	Tank No. 12
Lube Oil Tank at Secondary Crusher	300	Lube Oil	Tank No. 13
Recycled Oil	30,000	Recycled Oil	Tank No. 16
Recycled Oil	30,000	Recycled Oil	Tank No. 17
Petroleum Sulfonate (Conditioner) Tank at Float Plant	275	Conditioner	Tank No. 24
Two Propane Tanks at the electric shop 30,000 gallon each	60,000	Propane	Tank No. 25
Propane Tank at the Quarry	2,000	Propane	Tank No. 26
Propane Tank at #6 Oil Building	1,000	Propane	Tank No. 27
Two Propane Tanks at the C&R Shop	1,000	Propane	Tank No. 28
Sodium Hydroxide Tank	8,200	Sodium Hydroxide	Tank No. 29
Sulfuric Acid Tank	6,000	Sulfuric Acid	Tank No. 30
Flocculent Tank	550	Flocculent	Tank No. 31
Anti-foam Tank	2,500	Anti-foam	Tank No. 32
Promoter Tank	12,000	Promoter	Tank No. 33

Emission Factors for Material Transfer, Screening, and Crushing

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Sources	Emission Factors					
	PM (lb/ton)	Reference	PM ₁₀ (lb/ton)	Reference	PM _{2.5} (lb/ton)	Reference
Primary Crushing (Jaw) - Dry	0.0007	B	0.00033	B	0.00005	D
Primary Crushing (Jaw) - Wet Suppression	0.00021	B	0.0001	B	0.00002	D
Secondary Crushing (All) - Dry	0.00504	B	0.0024	B	0.00036	D
Secondary Crushing (All) - Wet Suppression	0.0012	B	0.00054	B	0.00008	D
Tertiary Crushing (All) - Dry	0.0054	A	0.0024	A	0.00036	D
Tertiary Crushing (All) - Wet Suppression	0.0012	A	0.00054	A	0.0001	A
Fines Crushing (All) - Dry	0.039	A	0.015	A	0.002271	D
Fines Crushing (All) - Wet Suppression	0.003	A	0.0012	A	0.00007	A
Screening (All) - Dry	0.025	A	0.0087	A	0.0013	D
Screening (All) - Wet Suppression	0.0022	A	0.00074	A	0.00005	A
Fines Screening (All) - Dry	0.3	A	0.072	A	0.011	D
Fines Screening (All) - Wet Suppression	0.0036	A	0.0022	A	0.00033	D
Conveyor Transfer - Dry	0.003	A	0.0011	A	0.00017	D
Conveyor Transfer - Wet Suppression	0.00014	A	0.000046	A	0.000013	A
Truck Unloading - Fragmented Stone	0.000034	B	0.000016	A	0.000002	D
Truck Loading - Crushed Stone	0.00021	B	0.0001	A	0.00002	D
Drilling	0.001	E	0.0008	E	0.00080	E
Clay Grinding and Screening (All) - Dry	8.5	C	0.53	C	0.080	D
Clay Grinding and Screening (All) - Wet Suppression	0.025	C	0.0023	C	0.00035	D

A. U.S. EPA, AP-42 Section 11.19.2 - Crushed Stone Processing and Pulverized Mineral Processing (August 2004), Table 11.19.2-2. Per footnote b, controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays.

B. TCEQ Air Permits Division, Rock Crusher Emission Calculations spreadsheet, https://www.tceq.texas.gov/permitting/air/guidance/newsource/rocks/nsr_fac_rock.html, Downloaded on January 5, 2015.

C. U.S. EPA, AP-42 Section 11.3 - Brick and Structural Clay Product Manufacturing (August 1997), Table 11.3-2.

D. PM_{2.5} emission factor is calculated by dividing the PM₁₀ emission factor by the ratio of PM₁₀ to PM_{2.5} particle size multipliers (k). The Particle size multipliers are from U.S. EPA, AP-42 Section 13.2.4 - Aggregate Handling and Storage Piles (November 2006), table following Equation 1.

k for PM ₁₀	0.35
k for PM _{2.5}	0.053
Ratio of PM ₁₀ to PM _{2.5}	6.6

E. Mojave Desert Air Quality Management District (AQMD) Emissions Inventory Guidance, Mineral Handling and Processing Industries. April 10, 2000

Emission Factors for Combustion

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Pollutants	Emission Factors (lb/1,000 gallon)		Emission Factors (lb/1,000 gallon)						Emission Factors (lb/10 ⁶ scf)	
	Propane	Reference	No. 2 Fuel Oil	Reference	No. 6 Fuel Oil	Reference	Recycled Oil	Reference	Natural Gas	Reference
NO _x	19	I	20	I	55	I	19	I	100	J
CO	3.2	I	5	I	5	I	5	I	84	J
SO ₂	0.054	A, G	28.4	C	235.5	C	221	F	0.6	J
PM (con)	0.5	A	1.3	C	1.5	C	1.5	C	5.7	J
PM (filt)	0.2	A	2	C	17.005	C	0	F	1.9	J
PM ₁₀ (filt)	0.2	A	1	C	14.70	C	0	F	1.9	J
PM _{2.5} (filt)	0.2	A	0.25	C	9.57	C	0	F	1.9	J
CO ₂	12586.574	H	22454.256	H	24783.00	H	23117.6	H	120018.54	H
CH ₄	0.6006	H	0.9108	H	0.99	H	0.9372	H	2.26	H
N ₂ O	0.12012	H	0.18216	H	0.198	H	0.18744	H	0.23	H
VOC	0.3	I	0.2	I	0.28	I	0.22	I	5.5	J
NH ₃	0.29	B	0.8	D	0.8	E	0.8	E	0.49	B
Lead	0	--	0.00126	C	0.0015	C	0.1015	F	0.0005	J

A. U.S. EPA, AP-42 Section 1.5 - Liquefied Petroleum Gas Combustion (July 2008), Table 1.5-1.

B. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200602, uncontrolled. Assuming emission factor from Propane same as emission factor for Natural Gas.

C. U.S. EPA, AP-42 Section 1.3 - Fuel Oil Combustion (May 2010), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-5, 1.3-6, 1.3-10 and 1.3-11. Some SO₂ and particulate emission factors are calculated by multiplying emission factor by the sulfur and/or ash content in fuel. PM(con) emission factor for Recycled Oil is assumed to be the same as that for No. 6 Fuel Oil. Sample calculations are included below for representative factors that were calculated. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel.

$$\text{Recycled Oil SO}_2 \text{ Factor (lb/1,000 gallon)} = \frac{147 \text{ lb}}{1,000 \text{ gallon}} \times 1.5 \% \text{ Sulfur} = 220.50 \text{ lb SO}_2 / 1,000 \text{ gallon}$$

D. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200501, uncontrolled. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel.

E. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200401. Assuming emission factor for Recycled Oil to be same as No. 6 Fuel Oil.

F. U.S. EPA, AP-42 Section 1.11 - Waste Oil Combustion (October 1996), Tables 1.11-1, 1.11-2, and 1.11-3. Assumed lead content of fuel = 18.45 ppm from maximum measure lead content from provided fuel delivery chemical analyses.

G. Sulfur content estimate for propane from A National Methodology and Emission Inventory for Residential Fuel Consumption, <http://www.epa.gov/ttnchie1/conference/ei12/area/haneke.pdf>

H. 40 CFR Part 98, Subpart C, Tables C-1 and C-2. Heating value for recycled oil taken from US Silica records. Heating values for other fuels from default values in Table C-1.

I. Facility's Title V permit, Condition 4.4.2.

J. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Table 1.4-1 and 2.

Emission Factors for Combustion

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Pollutants	Natural Gas (lb/MMSCF)	Emission Factors (lb/1,000 gallon)								Emission Factors (lb/10 ⁶ scf)	
		Propane	Reference	No. 2 Fuel Oil	Reference	No. 6 Fuel Oil	Reference	Recycled Oil	Reference	Natural Gas	Reference
Antimony	-	-	-	-	-	5.25E-03	B	4.50E-03	C	-	-
Arsenic	2.00E-04	1.78E-05	A	5.52E-04	B	1.32E-03	B	7.35E-03	D	2.00E-04	E
Beryllium	1.20E-05	1.07E-06	A	4.14E-04	B	2.78E-05	B	1.80E-03	C	1.20E-05	E
Cadmium	1.10E-03	9.81E-05	A	4.14E-04	B	3.98E-04	B	8.82E-03	D	1.10E-03	E
Chloride	-	-	-	-	-	3.47E-01	B	3.47E-01	B	-	-
Chromium	1.40E-03	1.25E-04	A	4.14E-04	B	8.45E-04	B	1.84E-02	D	1.40E-03	E
Cobalt	8.40E-05	7.49E-06	A	-	-	6.02E-03	B	5.70E-03	C	8.40E-05	E
Manganese	3.80E-04	3.39E-05	A	8.28E-04	B	3.00E-03	B	6.80E-02	C	3.80E-04	E
Mercury	2.60E-04	2.32E-05	-	4.14E-04	B	1.13E-04	B	-	-	2.60E-04	E
Nickel	2.10E-03	1.87E-04	A	4.14E-04	B	8.45E-02	B	1.60E-01	C	2.10E-03	E
Selenium	2.40E-05	2.14E-06	A	2.07E-03	B	6.83E-04	B	-	-	2.40E-05	E
Phosphorus	-	-	-	-	-	9.46E-03	B	3.60E-02	C	-	-
PCBs	-	-	-	-	-	-	-	7.35E-03	D	-	-
Phenol	-	-	-	-	-	-	-	2.40E-03	C	0.00E+00	-
Dichlorobenzene	1.20E-03	1.07E-04	A	-	-	-	-	8.00E-07	C	1.20E-03	-
Naphthalene	6.10E-04	5.44E-05	A	1.13E-03	B	1.13E-03	B	1.30E-02	C	6.10E-04	E
Phenanthrene	1.70E-05	1.52E-06	A	1.05E-05	B	1.05E-05	B	1.10E-02	C	1.70E-05	E
Dibutylphthalate	-	-	-	-	-	-	-	3.40E-05	C	-	-
Butylbenzylphthalate	-	-	-	-	-	-	-	5.10E-04	C	-	-
Bis(2-ethylhexyl)phthalate	-	-	-	-	-	-	-	2.20E-03	C	-	-
Pyrene	5.00E-06	4.46E-07	A	4.25E-06	B	4.25E-06	B	7.10E-03	C	5.00E-06	E
Benz(a)anthracene	1.80E-06	1.61E-07	A	4.01E-06	B	4.01E-06	B	4.00E-03	C	1.80E-06	E
Benzo(a)pyrene	1.20E-06	1.07E-07	A	-	-	-	-	4.00E-03	C	1.20E-06	E
Formaldehyde	7.50E-02	6.69E-03	A	6.10E-02	B	6.10E-02	B	-	-	7.50E-02	E
POM	-	-	-	3.30E-03	B	1.30E-03	B	-	-	-	-
Benzene	2.10E-03	1.87E-04	A	2.14E-04	B	2.14E-04	B	-	-	2.10E-03	E
Ethylbenzene	-	-	-	6.36E-05	B	6.36E-05	B	-	-	-	-
1,1,1-Trichloroethane	-	-	-	2.36E-04	B	2.36E-04	B	-	-	-	-
Toluene	3.40E-03	3.03E-04	A	6.20E-03	B	6.20E-03	B	-	-	3.40E-03	E
o-Xylene	-	-	-	1.09E-04	B	1.09E-04	B	-	-	-	-
Acenaphthene	1.80E-06	1.61E-07	A	2.11E-05	B	2.11E-05	B	-	-	1.80E-06	E
Acenaphthylene	1.80E-06	1.61E-07	A	2.53E-07	B	2.53E-07	B	-	-	1.80E-06	E
Anthracene	2.40E-06	2.14E-07	A	1.22E-06	B	1.22E-06	B	-	-	2.40E-06	E
Benzo(b,k)fluoranthene	-	-	-	1.48E-06	B	1.48E-06	B	-	-	-	-
Benzo(b)fluoranthene	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
Benzo(k)fluoranthene	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
Benzo(g,h,i)perylene	1.20E-06	1.07E-07	A	2.26E-06	B	2.26E-06	B	-	-	1.20E-06	E
Chrysene	1.80E-06	1.61E-07	A	2.38E-06	B	2.38E-06	B	-	-	1.80E-06	E
Dibenzo(a,h)anthracene	1.20E-06	1.07E-07	A	1.67E-06	B	1.67E-06	B	-	-	1.20E-06	E
Fluoranthene	3.00E-06	2.68E-07	A	4.84E-06	B	4.84E-06	B	-	-	3.00E-06	E
Fluorene	2.80E-06	2.50E-07	A	4.47E-06	B	4.47E-06	B	-	-	2.80E-06	E
Indeno(1,2,3-cd)pyrene	1.80E-06	1.61E-07	A	2.14E-06	B	2.14E-06	B	-	-	1.80E-06	E
Hexane	1.8	1.61E-01	A	-	-	-	-	-	-	1.80E+00	E
2-Methylnaphthalene ^B	2.40E-05	2.14E-06	A	-	-	-	-	-	-	2.40E-05	E
3-Methylchloranthrene ^B	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
12- Dimethylbenz(a)anthracen	1.60E-05	1.43E-06	A	-	-	-	-	-	-	1.60E-05	E

A. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Tables 1.4-3 and 1.4-4. Propane emission factors determined by converting natural gas emission factors from a lb/MMSCF natural gas to a lb/1,000 gal propane basis.

B. U.S. EPA, AP-42 Section 1.3 - Fuel Oil Combustion (May 2010), Tables 1.3-8, 1.3-9, 1.3-10 and 1.3-11. Sample calculations are included below for representative factors that were calculated. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel. When emission factors for No. 2 fuel oil were not available, assumed equal to emission factors for Residual Oil.

C. U.S. EPA, AP-42 Section 1.11 - Waste Oil Combustion (October 1996), Tables 1.11-4 and 1.11-5. Emission factors for Residual Fuel oil used in cases where emission factors for Waste Oil were not available.

D. Maximum value of pollutant concentration from monthly fuel delivery chemical analysis of Recycled Oil. Estimated emission factor based on conservative assumption that all of the pollutant in the fuel is emitted.

E. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Table 1.4-3 and 4.

Control Factors

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Control Method ^{A, B, C, D}	Control Efficiency (%)	Control Factor (1 - Control Efficiency)
None	0%	1
Partial Enclosure (skirt)	85%	0.15
Full Enclosure (boot)	90%	0.1
Enclosed by Building	90%	0.1
Wet Material	50%	0.5
Water Spray	70%	0.3
Chemicals/Foam	80%	0.2
Washed Sand/Gravel	95%	0.05
Washed Sand/Gravel With Water Spray	98.5%	0.015
Saturated Material (No Visible Emissions)	99%	0.01
Fabric Filter - Partial Enclosure	89.9%	0.1009
Fabric Filter - No Enclosure	74.9%	0.25075
Wet Scrubber	80%	0.2
Fabric Filter	99.9%	0.001

A. Control efficiency for all control methods except saturated material and fabric filters from TCEQ Air Permits Division, Rock Crusher Emission Calculations spreadsheet, https://www.tceq.texas.gov/permitting/air/guidance/newsourcereview/rocks/nsr_fac_rock.html, Downloaded on January 5, 2015.

- Wet control methods (i.e., water, chemicals, saturated material, etc.) are to be applied to dry control factors.

B. Control efficiency for saturated material from TCEQ Air Permits Division, Rock Crushing Plants, Draft RG 058 (February 2002), Table 7, in a note that states "A 99% control efficiency may be allowed when a facility (emission point) operates under saturated conditions with no visible emissions."

C. Control efficiency for fabric filters from typical expected efficiency.

D. Efficiencies for fabric filter controls with partial enclosures and no enclosures and wet scrubber from engineering estimates of expected capture efficiencies.

Emission Factors for Tanks

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Pollutants	Emission Factors (lb/gallon)
	Tank
Benzene	8.47E-07
Ethylbenzene	1.21E-06
n-Hexane	1.73E-07
Toluene	9.56E-06
VOC	3.03E-05

A. Based on TankESP run assuming generic tank attributes.

Baghouse Emissions

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Title V ID	Source Description	Process Unit Description	Flowrate (dscfm)	Outlet Grain Loading (gr/dscf)	Annual Hours of Operation (hrs/year)	Emission Rate (tpy) ^{A,B,C}		
						PM	PM ₁₀	PM _{2.5}
Fluid Bed Dryer & Rotary Dryer	Fluid Bed Dryer & Rotary Dryer	Fluid Bed Dryer & Rotary Dryer	--	--	--	95.4800	95.4800	76.3840
Screening and Unground Sanding	Screening and Unground Sanding Processing CF#40	Screening and Unground Sanding Processing CF#40	5,500	0.014	8,760	2.8908	2.8908	2.3126
Screening and Unground Sanding	Screening and Unground Sanding Processing CF#6	Screening and Unground Sanding Processing CF#6	20,000	0.014	8,760	10.5120	10.5120	8.4096
Total						108.8828	108.8828	87.1062

A. Fluid Bed Dryer & Rotary Dryer Emissions based on combined TVOP Limit.

B. PM/PM₁₀/PM_{2.5} Emission Rate (tpy) = Flowrate (acfm) * Outlet Grain Loading (gr/scf) * (1 lb / 7,000 gr) * (1 ton / 2,000 lb) * Annual Hours of Operation (hrs/year) * (60 min / 1 hr)

Source Description Screening and Unground Sanding Processing	5,500 acfm	0.01 gr/dscf	1 lb/7,000 gr	1 ton/2,000 lb	8,760 hrs/year	60 min/1 hr	=	2.8908 tpy
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C. Assuming PM_{2.5} emissions are 80% of PM₁₀ emissions.

Stockpile Emissions

Material Storage Pile Wind Erosion Annual Emissions

Title V ID	Size (acres)	Emission Control Method	Control Efficiency	Days in Reporting Period	Emission Factor ^A			Unit	Emission Rate (tpy)		
					PM	PM ₁₀	PM _{2.5}		PM	PM ₁₀	PM _{2.5}
Golf Sand Stockpile & Float Sand Stockpile	5.63	None	0%	365	698.14	349.07	52.36	lb/acre	1.97	0.98	0.15
Reclaim Stockpile	1.386	Partial Enclosure (skirt)	0%	365	698.14	349.07	52.36	lb/acre	0.48	0.24	0.04
Total Stockpile Erosion Emissions									2.45	1.22	0.18

A. USEPA, 1992 (Fugitive Dust Background and Technical Information Document for Best Available Control Measures, Section 2.3.1.3.3, Wind Emissions from Continuously Active Piles). USEPA, 2006 13.2.5 for k factor:

$$EF \text{ (lb/day/acre)} = k \times 1.7 \times (s/1.5) \times ((365 - p)/235) \times (f/15) \times (1 - \% \text{ Control Efficiency})$$

B. Total PM assumed to be equal to PM < 30 μm

C. Total days of precipitation greater than or equal to 0.01 inch from U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Figure 13.2.2-1

Days of precipitation greater than or equal to 0.01 inch (p)	102
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D. Time (%) that unobstructed wind speed exceeds 5.4 m/s at mean pile height from climatological data at Hagerstown, MD from 2012-2014

Time (%) that unobstructed wind speed exceeds 5.4 m/s at mean pile height (f)	7.8
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E. Silt content from U.S. EPA, AP-42 Section 13.2.4 - Aggregate Handling and Storage Piles (November 2006), Table 12.2.4-1:

Silt Content (%), (s)	2.9
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F. Particle Size multiplier from U.S. EPA, AP-42 Section 13.2.5 - Industrial Wind Erosion (November 2006), Table after Equation 2

- Particle Size multiplier (k)
- 1 (for PM < 30 μm)
 - 0.5 (for PM < 10 μm)
 - 0.075 (for PM < 2.5 μm)

Blasting Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Factor (lb/blast)		
PM	PM ₁₀	PM _{2.5}
6.47	3.3654	0.1942

Title V ID	Area Removed per Blast	Number of Blasts per Year	Control Method	Control Factor ^A	PM Emission Factor (lb/blast) ^B	Emission Rate (tpy) ^{C, D}		
						PM	PM ₁₀	PM _{2.5}
Quarry	5978.823529	51	None	1	6.47	0.1650	0.0858	0.0050
Total						0.1650	0.0858	0.0050

A. Control factors from *Control Factors* table.

B. U.S. EPA, AP-42 Section 11.9 Western Surface Coal Mining (October 1998), Table 11.9-1.

C. PM Emission Rate (tpy) = (PM Emission Factor (lbs PM per blast))*(Number of blasts per year)*(1 ton/2,000 lbs.)

$$\text{Quarry PM emission Rate (tpy)} = \frac{6.472 \text{ lb PM}}{\text{blast}} \times 51.0 \text{ blasts} \times 1 \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 0.165 \text{ tpy}$$

D. PM10 and PM2.5 emissions estimated using scaling factors from U.S. EPA, AP-42 Section 11.9 Western Surface Coal Mining (October 1998), Table 11.9-1.

Scaling factor for PM ₁₀	0.52
Scaling factor for PM _{2.5}	0.03

Unpaved Roads Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Mean Vehicle Weight

Vehicle Type	Product Handled	Weight Empty (tons)	Weight Full (tons)	Mean Vehicle Weight ^A (tons)
Haul Trucks/Trucks	Quarried material	68	157.5	112.75

A. Mean Vehicle Weight (tons) = (Weight Full (tons) - Weight Empty (tons))/2

Vehicle Mile Traveled

Emission Unit ID	Source Description	Trip Description	Vehicle Type	Product Handled	Annual Throughput (tons/year)	Roundtrip Length (miles/trip)	Number of Trips ^A (trips/year)	Vehicle Mile Traveled ^B (VMT/year)
Roads	Facility Roadways	Unpaved Haul Roads	Haul Trucks/Trucks	Quarried material	8,760,000	2.00	77,694	155,388
Roads	Facility Roadways	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	8,760,000	1.00	77,694	77,694
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	4,380,000	0.40	38,847	15,539

A. Number of Trips (trips/year) = Annual Throughput (tons/year) / (Mean Vehicle Weight (tons))

$$\text{Unpaved Haul Roads Number of Trips (trips/year)} = \frac{8,760,000 \text{ tons}}{\text{year}} \div \frac{1}{112.75 \text{ tons}} = 77,694 \text{ trips/year}$$

B. Vehicle Mile Traveled (VMT/year) = Roundtrip Length (miles/trip) * Number of Trips (trips/year)

$$\text{Unpaved Haul Roads Vehicle Mile Traveled (VMT/year)} = \frac{2.00 \text{ miles}}{\text{trip}} \times \frac{77,694 \text{ trips}}{\text{year}} = 155,388 \text{ VMT/year}$$

Unpaved Roads Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Calculations

Emission Unit ID	Source Description	Trip Description	Emission Factor ^A (lb/VMT)			Emission Rate ^B (tpy)		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
Roads	Facility Roadways	Unpaved Haul Roads	8.89	2.27	0.23	207.2703	52.8256	5.2826
Roads	Facility Roadways	Unpaved Plant Traffic	8.89	2.27	0.23	103.6351	26.4128	2.6413
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	8.89	2.27	0.23	20.7270	5.2826	0.5283
Total						331.6324	84.5209	8.4521

A. U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Equations 1a and 2.

Emission Factor (lb/VMT) = (Particle Size Multiplier (lb/VMT) * (Surface Material Silt Content (%) / 12)^a * (Mean Vehicle Weight (tons) / 3)^b) * ((365 - P)/365)

$$\text{Source Description Facility Roadways PM Emission Factor (lb/VMT)} = \frac{4.9 \text{ lb}}{\text{VMT}} \left(\frac{4.8 / 100}{12} \right)^{0.7} * \left(\frac{112.75}{3} \right)^{0.45} * \frac{(365 - 119)}{365} = 8.89 \text{ lb/VMT}$$

Parameter	Value	Reference
PM Particle Size Multiplier (lb/VMT)	4.9	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Table 13.2.2-2.
PM ₁₀ Particle Size Multiplier (lb /VMT)	1.5	
PM _{2.5} Particle Size Multiplier (lb/VMT)	0.15	
PM Empirical Constant a	0.7	
PM ₁₀ Empirical Constant a	0.9	
PM _{2.5} Empirical Constant a	0.9	
PM Empirical Constant b	0.45	
PM ₁₀ Empirical Constant b	0.45	
PM _{2.5} Empirical Constant b	0.45	
Surface Material Silt Content (%)	4.8	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Table 13.2.2-1.
P (Number of days with ≥ 0.01" precipitation in a year)	119	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Figure 13.2.2-1.
Control Factor	0.3	Water Spray

B. Emission Rate (tpy) = Emission Factor (lb/VMT) * Vehicle Mile Traveled (VMT/year) * (1 ton / 2,000 lb) * (Control Factor)

$$\text{Source Description Facility Roadways PM Emission Rate (tpy)} = \frac{8.89 \text{ lb}}{\text{VMT}} \left| \frac{77,694 \text{ VMT}}{\text{year}} \right| \left| \frac{1 \text{ ton}}{2,000 \text{ lb}} \right| \left| 0.3 \right| = 207.2703 \text{ tpy}$$

Permitted Limit Emissions

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit ID	Emission Factor			Input Data		Emission
	Value	Units	Pollutant	Value	Units	Rate (tpy) ^A
Material Transfer/Conveying	1.00	lb/hr	PM	8,760	hrs/year	4.3800
Material Transfer/Conveying	1.00	lb/hr	PM10	8,760	hrs/year	4.3800
Material Transfer/Conveying	0.80	lb/hr	PM2.5	8,760	hrs/year	3.5040
Screening	0.69	lb/hr	PM	8,760	hrs/year	3.0003
Screening	0.69	lb/hr	PM10	8,760	hrs/year	3.0003
Screening	0.55	lb/hr	PM2.5	8,760	hrs/year	2.4002
Bulk Load and BFS Bagger	0.69	lb/hr	PM	8,760	hrs/year	3.0003
Bulk Load and BFS Bagger	0.69	lb/hr	PM10	8,760	hrs/year	3.0003
Bulk Load and BFS Bagger	0.55	lb/hr	PM2.5	8,760	hrs/year	2.4002
Bulk Bagger	0.10	lb/hr	PM	8,760	hrs/year	0.4380
Bulk Bagger	0.10	lb/hr	PM10	8,760	hrs/year	0.4380
Bulk Bagger	0.08	lb/hr	PM2.5	8,760	hrs/year	0.3504
#6 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#6 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#6 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#7/#8 Silo	0.70	lb/hr	PM	8,760	hrs/year	3.0660
#7/#8 Silo	0.70	lb/hr	PM10	8,760	hrs/year	3.0660
#7/#8 Silo	0.56	lb/hr	PM2.5	8,760	hrs/year	2.4528
#5 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#5 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#5 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#4 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#4 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#4 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#3 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#3 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#3 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#2 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#2 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#2 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#1 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#1 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#1 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752

A. Emission Rate (tpy) = Emission Factor (lb/hr) * Input Data (hrs/year) * (1 ton / 2,000 lb)

$$\text{Material Transfer/Conveying PM Emission Rate (tpy)} = \frac{1.00 \text{ lb/hr PM} \times 8,760 \text{ hrs/year}}{2,000 \text{ lb}} = 4.38 \text{ tpy}$$

Combustion Emissions (Total)

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Factor ^{A,C}													Value	
				Value	Unit	PM (filt)	PM _{1.0} (filt)	PM _{2.5} (filt)	PM (con)	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead		
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	17.005	14.6985	9.5735	1.5	55	5	235.5	24783	0.99	0.198	0.28	0.8	0.0015	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0	0	0	1.5	19	5	220.5	23117.6	0.9372	0.18744	0.22	0.8	0.10148	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	0.2	0.2	0.2	0.5	19	3.2	0.054	12586.57	0.6006	0.12012	0.3	0.285	0	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	2	1	0.25	1.3	20	5	28.4	22454.26	0.9108	0.18216	0.2	0.8	0.00126	lb/1,000 gal	
Dryer #1	Dry Sand Processing	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	609.76	million scf/year	1.9	1.9	1.9	5.7	100	84	0.6	120018.5	2.26194	0.22619	5.5	0.49	0.0005	lb/million scf	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	0.2	0.2	0.2	0.5	19	3.2	0.054	12586.57	0.6006	0.12012	0.3	0.285	0	lb/1,000 gal	
Fluid Bed Dryer Total																				
Fluid Rotary Dryer Total																				

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer -
Propane Combustion NOx Emission Rate

$$\text{(tpy)} = \frac{19 \text{ lb/1,000 gal} \times 6,797.38 \text{ 1,000 gal/year}}{2,000 \text{ lb}} = 64.5751 \text{ tpy}$$

C. PM, PM₁₀ and PM_{2.5} emissions from recycled oil combustion on the Fluid Bed Dryer and propane combustion on the Rotary Dryer have been conservatively accounted for in calculations from stack testing done in December, 2012. (See Baghouse tab).

Combustion Emissions (Total)

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Rate (tpy) ^b												
				Value	Unit	PM (filt)	PM ₁₀ (filt)	PM _{2.5} (filt)	PM (con)	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	35.25	30.47	19.85	3.11	114.03	10.37	488.24	51380.12	2.05	0.41	0.58	1.66	0.00
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0.00	0.00	0.00	3.11	39.39	10.37	457.14	47927.41	1.94	0.39	0.46	1.66	0.21
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	0.68	0.68	0.68	1.70	64.58	10.88	0.18	42777.84	2.04	0.41	1.02	0.97	0.00
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	4.44	2.22	0.56	2.89	44.43	11.11	63.08	49877.32	2.02	0.40	0.44	1.78	0.00
Dryer #1	Dry Sand Processing	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	609.76	million scf/year	0.58	0.58	0.58	1.74	30.49	25.61	0.18	36591.54	0.69	0.07	1.68	0.15	0.00
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	0.16	0.16	0.16	0.41	15.55	2.62	0.04	10302.83	0.49	0.10	0.25	0.23	0.00
Fluid Bed Dryer Total						35.25	30.47	19.85	3.11	114.03	25.61	488.24	51380.12	2.05	0.41	1.68	1.78	0.21
Fluid Rotary Dryer Total						0.16	0.16	0.16	0.41	15.55	2.62	0.04	10302.83	0.49	0.10	0.25	0.23	0.00

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer -
Propane Combustion NOx Emission Rate

$$(\text{tpy}) = \frac{19 \text{ lb/1,000 gal} \times 6,797.38 \text{ 1,000 gal/year} \times 1 \text{ ton}}{2,000 \text{ lb}}$$

C. PM, PM₁₀ and PM_{2.5} emissions from recycled oil combustion on the Fluid Bed Dryer and propane combustion on the Rotary Dryer have been

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Factor ^A													
				Value	Unit	Antimony	Arsenic	Beryllium	Cadmium	Chloride	Chromium	Cobalt	Manganese	Mercury	Nickel	Selenium	Phosphorus	PCBs	Phenol
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	5.25E-03	1.32E-03	2.78E-05	3.98E-04	3.47E-01	8.45E-04	6.02E-03	3.00E-03	1.13E-04	8.45E-02	6.83E-04	9.46E-03	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	4.50E-03	7.35E-03	1.80E-03	8.82E-03	3.47E-01	1.84E-02	5.70E-03	6.80E-02	-	1.60E-01	-	3.60E-02	7.35E-03	2.40E-03
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	-	1.78E-05	1.07E-06	9.81E-05	-	1.25E-04	7.49E-06	3.39E-05	2.32E-05	1.87E-04	2.14E-06	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	-	5.52E-04	4.14E-04	4.14E-04	-	4.14E-04	-	8.28E-04	4.14E-04	4.14E-04	2.07E-03	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	609.76	million scf/year	2.00E-04	1.20E-05	1.10E-03	-	1.40E-03	8.40E-05	3.80E-04	2.60E-04	2.10E-03	2.40E-05	-	-	-	0.00E+00
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	-	1.78E-05	1.07E-06	9.81E-05	-	1.25E-04	7.49E-06	3.39E-05	2.32E-05	1.87E-04	2.14E-06	-	-	-

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Rate (tpy) ^B													
				Value	Unit	Antimony	Arsenic	Beryllium	Cadmium	Chloride	Chromium	Cobalt	Manganese	Mercury	Nickel	Selenium	Phosphorus	PCBs	Phenol
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	0.0109	0.0027	0.0001	0.0008	0.7194	0.0018	0.0125	0.0062	0.0002	0.1752	0.0014	0.0196		
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0.0093	0.0152	0.0037	0.0183	0.7194	0.0382	0.0118	0.1410		0.3317		0.0746	0.0152	0.0050
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year		0.0001	0.0000	0.0003		0.0004	0.0000	0.0001	0.0001	0.0006	0.0000			
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year		0.0012	0.0009	0.0009		0.0009		0.0018	0.0009	0.0009	0.0046			
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	609.76	million scf/year		0.0001	0.0000	0.0003		0.0004	0.0000	0.0001	0.0001	0.0006	0.0000			0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year		0.0000	0.0000	0.0001		0.0001	0.0000	0.0000	0.0000	0.0002	0.0000			
Fluid Bed Dryer Total						0.0109	0.0152	0.0037	0.0183	0.7194	0.0382	0.0125	0.1410	0.0009	0.3317	0.0046	0.0746	0.0152	0.0049
Fluid Rotary Dryer Total							0.0000	0.0000	0.0001		0.0001	0.0000	0.0000	0.0000	0.0002	0.0000			

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal} \times 4,146.4 \text{ 1,000 gal/year}}{2,000 \text{ lb}} = 0.0093 \text{ tpy}$

Combustion Emissions (Total)

Company Name: U.S. Silica
 Site Name: Berkeley Springs Plant
 Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dichlorobenzene	Naphthalene	Phenanthrene	Dibutylphthalate	Butylbenzylphthalate	Bis(2-ethylhexyl)phthalate	Pyrene	Benz(a)anthracene	Benzo(a)pyrene	Formaldehyde	POM	Benzene	Ethylbenzene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	-	1.13E-03	1.05E-05	-	-	-	4.25E-06	4.01E-06	-	6.10E-02	1.30E-03	2.14E-04	6.36E-05
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	8.00E-07	1.30E-02	1.10E-02	3.40E-05	5.10E-04	2.20E-03	7.10E-03	4.00E-03	4.00E-03	-	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	1.07E-04	5.44E-05	1.52E-06	-	-	-	4.46E-07	1.61E-07	1.07E-07	6.69E-03	-	1.87E-04	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	-	1.13E-03	1.05E-05	-	-	-	4.25E-06	4.01E-06	-	6.10E-02	3.30E-03	2.14E-04	6.36E-05
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	1.20E-03	6.10E-04	1.70E-05	-	-	-	5.00E-06	1.80E-06	1.20E-06	7.50E-02	-	2.10E-03	-
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1.07E-04	5.44E-05	1.52E-06	-	-	-	4.46E-07	1.61E-07	1.07E-07	6.69E-03	-	1.87E-04	-

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dichlorobenzene	Naphthalene	Phenanthrene	Dibutylphthalate	Butylbenzylphthalate	Bis(2-ethylhexyl)phthalate	Pyrene	Benz(a)anthracene	Benzo(a)pyrene	Formaldehyde	POM	Benzene	Ethylbenzene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil		0.0023	0.0000				0.0000	0.0000		0.1265	0.0027	0.0004	0.0001
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	0.0000	0.0270	0.0228	0.0001	0.0011	0.0046	0.0147	0.0083	0.0083				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	0.0004	0.0002	0.0000				0.0000	0.0000	0.0000	0.0227		0.0006	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil		0.0025	0.0000				0.0000	0.0000		0.1355	0.0073	0.0005	0.0001
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	0.0004	0.0002	0.0000				0.0000	0.0000	0.0000	0.0229		0.0006	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	0.0001	0.0000	0.0000				0.0000	0.0000	0.0000	0.0055		0.0002	
				0.00037	0.02695	0.02281	0.00007	0.00106	0.00456	0.01472	0.00829	0.00829	0.13550	0.00733	0.00064	0.00014
				0.00009	0.00004	0.00000				0.00000	0.00000	0.00000	0.00548		0.00015	

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal}}{2,204.62 \text{ lb/t}}$

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	1,1,1-Trichloroethane	Toluene	o-Xylene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b,k)fluoranthene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	2.36E-04	6.20E-03	1.09E-04	2.11E-05	2.53E-07	1.22E-06	1.48E-06	-	-	2.26E-06	2.38E-06
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	-	-	-	-	-	-	-	-	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	-	3.03E-04	-	1.61E-07	1.61E-07	2.14E-07	-	1.61E-07	1.61E-07	1.07E-07	1.61E-07
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	2.36E-04	6.20E-03	1.09E-04	2.11E-05	2.53E-07	1.22E-06	1.48E-06	-	-	2.26E-06	2.38E-06
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	-	3.40E-03	-	1.80E-06	1.80E-06	2.40E-06	-	1.80E-06	1.80E-06	1.20E-06	1.80E-06
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	-	3.03E-04	-	1.61E-07	1.61E-07	2.14E-07	-	1.61E-07	1.61E-07	1.07E-07	1.61E-07

Emission Unit	Source Description	Process Unit Description	Fuel Used	1,1,1-Trichloroethane	Toluene	o-Xylene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b,k)fluoranthene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	0.0005	0.0129	0.0002	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil											
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane		0.0010		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	0.0005	0.0138	0.0002	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas		0.0010		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane		0.0002		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
				0.00052	0.01377	0.00024	0.00005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
					0.00025		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal}}{2,204.62} \times 1,000 \text{ gal/year} \times 1 \text{ t/2,204.62 lb}$

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Hexane	2-Methylnaphthalene ^B	3-Methylchloranthrene ^B	7,12- Dimethylbenz(a)anthracene ^B	Units
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	1.67E-06	4.84E-06	4.47E-06	2.14E-06	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	-	-	-	-	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	1.07E-07	2.68E-07	2.50E-07	1.61E-07	1.61E-01	2.14E-06	1.61E-07	1.43E-06	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	1.67E-06	4.84E-06	4.47E-06	2.14E-06	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	1.20E-06	3.00E-06	2.80E-06	1.80E-06	1.80E+00	2.40E-05	1.80E-06	1.60E-05	lb/million scf
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1.07E-07	2.68E-07	2.50E-07	1.61E-07	1.61E-01	2.14E-06	1.61E-07	1.43E-06	lb/1,000 gal

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Hexane	2-Methylnaphthalene ^B	3-Methylchloranthrene ^B	7,12- Dimethylbenz(a)anthracene ^B
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	0.0000	0.0000	0.0000	0.0000				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil								
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	0.0000	0.0000	0.0000	0.0000	0.5458	0.0000	0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	0.0000	0.0000	0.0000	0.0000				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	0.0000	0.0000	0.0000	0.0000	0.5488	0.0000	0.0000	0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	0.0000	0.0000	0.0000	0.0000	0.1315	0.0000	0.0000	0.0000
				0.00000	0.00001	0.00001	0.00000	0.54879	0.00001	0.00000	0.00000
				0.00000	0.00000	0.00000	0.00000	0.13145	0.00000	0.00000	0.00000

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy)= 0.0045 lb/1,000 gal

Limestone Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Title V ID	Description	EP ID	Emissions ^A					
			Uncontrolled					
			PM		PM-10		PM-2.5	
LB/HR	TPY	LB/HR	TPY	LB/HR	TPY			
STOCK1	Stockpile	FP01	0.007	0.029	0.003	0.014	0.000	0.002
CRUSH1	Primary Crusher	E02	1.100	4.818	0.370	1.621	0.000	0.000
CRUSH2	Secondary cone crusher	E04	1.100	4.818	0.370	1.621	0.000	0.000
SCREN1	scalping screener	E01	1.100	4.818	0.370	1.621	0.000	0.000
SCREN2	screener	E03	1.100	4.818	0.370	1.621	0.000	0.000
SCREN3	screener	E05	1.100	4.818	0.370	1.621	0.000	0.000
TRUCK1	Front end loader feeding scalping screen	TP01	0.008	0.035	0.008	0.035	0.008	0.035
FEEDER1	Screen feeding crusher	TP02	0.070	0.307	0.023	0.101	0.007	0.028
CRUSH1	Crusher onto belt conveyor	TP03	0.070	0.307	0.023	0.101	0.007	0.028
SCREN1	Belt conveyor feeding screener	TP04	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC1	Conveyor from Screener	TP05	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC2	Conveyor from Screener	TP06	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC3	Conveyor from Screener	TP07	0.070	0.307	0.023	0.101	0.007	0.028
STACKBC1	Conveyor belt transfer	TP08	0.070	0.307	0.023	0.101	0.007	0.028
STACKBC2	Conveyor belt transfer	TP09	0.070	0.307	0.023	0.101	0.007	0.028
CRUSH2	Conveyor belt Feeding Crusher	TP10	0.070	0.307	0.023	0.101	0.007	0.028
CRUSHSCR1	Crushing Feeding Screener	TP11	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC4	Conveyor from Screener	TP12	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC5	Conveyor from Screener	TP13	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC6	Conveyor from Screener	TP14	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC7	Conveyor from Screener	TP15	0.070	0.307	0.023	0.101	0.007	0.028
Total			6.495	28.446	2.183	9.563	0.099	0.436
Annual Operations:		4,380,000		tons				
		8,760		hours				

Limestone	Emission Factors ^A			
	Controlled (Water Sprays)			
	PM	PM10	PM2.5	Units
Secondary Crushing	0.002	0.001	0.000	lb/ton
Screening	0.002	0.001	0.000	lb/ton
Truck Unloading	0.000016	0.000016	0.000016	lb/ton
Transfer - Conveyor	0.00014	0.000046	0.000013	lb/ton
Stockpiles	0.156	0.078	0.012	lb/day

A. Obtained from construction permit application from September 2021.

Tank Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Title V ID	Source Description	Material	Capacity Value (gal)	Emission Factor ^B (lb/gal)				
				Benzene	Ethylbenzene	n-Hexane	Toluene	VOC
Tank No. 1	Diesel Fuel Tank	Diesel	10,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 2	Used Oil Tank at Maintenance garage	Used Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 3	Used Oil Tank at Maintenance garage	Used Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 4	#1 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 5	#2 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 6	#3 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 7	#4 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 8	Recycled Oil Tank near Float Plant	Recycled Oil	10,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 11	Kerosene Tank at C & R Shop	Kerosene	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 12	Gasoline Tank at Office Building	Gasoline	1,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 13	Lube Oil Tank at Scondary Crusher	Lube Oil	300.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 16	Recycled Oil	Recycled Oil	30,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 17	Recycled Oil	Recycled Oil	30,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	Conditioner	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	Propane	60,000.00	--	--	--	--	--
Tank No. 26	Propane Tank at the Quarry	Propane	2,000.00	--	--	--	--	--
Tank No. 27	Propane Tank at #6 Oil Building	Propane	1,000.00	--	--	--	--	--
Tank No. 28	Two Propane Tanks at the C&R Shop	Propane	1,000.00	--	--	--	--	--
Tank No. 29	Sodium Hydroxide Tank	Sodium Hydroxide	8,200.00	--	--	--	--	--
Tank No. 30	Sulfuric Acid Tank	Sulfuric Acid	6,000.00	--	--	--	--	--
Tank No. 31	Floculent Tank	Floculent	500.00	--	--	--	--	3.03E-05
Tank No. 32	Anti-foam Tank	Anti-foam	2,500.00	--	--	--	--	3.03E-05
Tank No. 33	Promoter Tank	Promoter	12,000.00	--	--	--	--	3.03E-05

Title V ID	Source Description	Material	Throughput Value (gal)	Emission Rate (tpy) ^C				
				Benzene	Ethylbenzene	n-Hexane	Toluene	VOC
Tank No. 1	Diesel Fuel Tank	Diesel	120,000.00	0.0001	0.0001	0.0000	0.0006	0.0018
Tank No. 2	Used Oil Tank at Maintenance garage	Used Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 3	Used Oil Tank at Maintenance garage	Used Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 4	#1 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 5	#2 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 6	#3 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 7	#4 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 8	Recycled Oil Tank near Float Plant	Recycled Oil	120,000.00	0.0001	0.0001	0.0000	0.0006	0.0018
Tank No. 11	Kerosene Tank at C & R Shop	Kerosene	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 12	Gasoline Tank at Office Building	Gasoline	12,000.00	0.0000	0.0000	0.0000	0.0001	0.0002
Tank No. 13	Lube Oil Tank at Scondary Crusher	Lube Oil	3,600.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 16	Recycled Oil	Recycled Oil	360,000.00	0.0002	0.0002	0.0000	0.0017	0.0055
Tank No. 17	Recycled Oil	Recycled Oil	360,000.00	0.0002	0.0002	0.0000	0.0017	0.0055
Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	Conditioner	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	Propane	720,000.00	--	--	--	--	--
Tank No. 26	Propane Tank at the Quarry	Propane	24,000.00	--	--	--	--	--
Tank No. 27	Propane Tank at #6 Oil Building	Propane	12,000.00	--	--	--	--	--
Tank No. 28	Two Propane Tanks at the C&R Shop	Propane	12,000.00	--	--	--	--	--
Tank No. 29	Sodium Hydroxide Tank	Sodium Hydroxide	98,400.00	--	--	--	--	--
Tank No. 30	Sulfuric Acid Tank	Sulfuric Acid	72,000.00	--	--	--	--	--
Tank No. 31	Floculent Tank	Floculent	6,600.00	--	--	--	--	0.0001
Tank No. 32	Anti-foam Tank	Anti-foam	30,000.00	--	--	--	--	0.0005
Tank No. 33	Promoter Tank	Promoter	144,000.00	--	--	--	--	0.0022
Total				0.0004	0.0006	0.0001	0.0048	0.0179

A. Throughput based on 1 turnover per month per tank.
 B. Emission factors from *Emission Factors for Tanks* table for each tank.
 C. Emission Rate (tpy) = Emission Factor (lb/gal) * Fuel Throughput (gal/year) * (1 ton / 2,000 lb)

Tank No. 1 Diesel Fuel Tank Benzene Emission Rate (tpy)=

0.00000085 lb/gal	120,000.0 gal	1 ton 2,000 lb	=	0.0001 tpy
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Company Name:

U.S. Silica

Site Name:

Berkeley Springs Plant

Project:

Potential to Emit Calculations

Summary of Emissions

Source Type	Annual Emissions (tpy) ^A											
	PM	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead
Baghouse Emissions	108.8828	108.8828	87.1062	-	-	-	-	-	-	-	-	-
Fluid Bed Dryer & Rotary Dryer	95.4800	95.4800	76.3840	-	-	-	-	-	-	-	-	-
Screening and Unground Sanding Processing CF#40	2.8908	2.8908	2.3126	-	-	-	-	-	-	-	-	-
Screening and Unground Sanding Processing CF#6	10.5120	10.5120	8.4096	-	-	-	-	-	-	-	-	-
Stockpile Emissions	2.4491	1.2245	0.1837	-	-	-	-	-	-	-	-	-
Blasting Emissions	0.1650	0.0858	0.0050	-	-	-	-	-	-	-	-	-
Unpaved Roads Emissions	331.6324	84.5209	8.4521	-	-	-	-	-	-	-	-	-
Permitted Limit Emissions	15.1986	15.1986	12.1589	-	-	-	-	-	-	-	-	-
Combustion Emissions (Total) ^{B,C}												
Fluid Bed Dryer Combustion Emissions	--	--	--	96.35	13.75	267.00	51380.1156	2.0525	0.4105	1.27	1.7770	0.2104
Fluid Rotary Dryer Combustion Emissions	--	--	--				10302.8330	0.4916	0.0983		0.2337	0.0000
New Limestone System	28.4459	9.5627	0.4358	-	-	-	-	-	-	-	-	-
Material Transfer, Screening, and Crushing Emissions	48.1876	19.7231	5.9534	-	-	-	-	-	-	-	-	-
Tank Emissions	-	-	-	-	-	-	-	-	-	0.0179	-	-
Total	534.9615	239.1984	114.2950	96.3500	13.7500	267.0000	61682.9486	2.5441	0.5088	1.2879	2.0107	0.2104

A. Due to the large number of pollutants, a summary of HAPs emissions from combustion are not presented in this table. Please see table on "EC Combustion-HAPs" and "Tanks" tab for summary of HAP emissions.

B. NOx, CO, SO2, and VOC emissions from combustion sources reference TVOP Emissions Limitations for these sources.

C. Particulate Matter emissions from combustion sources are accounted for in the Fluid Bed Dryer & Rotary Dryer Baghouse Emissions.



Roberts, Daniel P <daniel.p.roberts@wv.gov>

US Silica renewal

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov>
To: Daniel P Roberts <daniel.p.roberts@wv.gov>

Tue, Oct 24, 2023 at 8:42 AM

Hi Dan,

I put a date on the cover but for some reason it won't save when I try to combine them. If you look at it in AX it worked LOL! Anyway, here's a dated cover and the application. If I get it assembled the way I wanted it I'll send it over later.

Have a great day!

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection


Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281

2 attachments

 **R30-06500001-2024 cover.pdf**
448K

 **R30-06500001-2024 US Silica renewal.pdf**
6088K

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

• **Type of NSR Application (check all that apply):**

- Construction
- Modification
- Class I Administrative Update
- Class II Administrative Update
- Relocation
- Temporary
- Permit Determination

• **Type of 45CSR30 (TITLE V) Application:**

- Title V Initial
- Title V Renewal
- Administrative Amendment**
- Minor Modification**
- Significant Modification**
- Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENTS to the combined NSR/Title V application.**

• **Payment Type:**

- Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
- Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

• **If the permit writer has any questions, please contact (all that apply):**

Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

Company Contact

- Name:
- Email:
- Phone Number:

Consultant

- Name:
- Email:
- Phone Number:

**TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.</p>	
<input checked="" type="checkbox"/>	Application signed by a Responsible Official as defined in 45CSR§30-2.38 (“ <i>Section 6: Certification of Information</i> ” page signed and dated)
<input checked="" type="checkbox"/>	Table of Contents (should be included, but not required for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input checked="" type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



Berkeley Springs Plant

Title V Permit to Operate Renewal Application
Permit Number: R30-06500001-2019
October 16, 2023

Table of Contents

Introduction

Attachment A - Area Map

Attachment B - Plot Plan

Attachment C - Process Flow Diagrams

Attachment D - Equipment Table

Attachment E - Emission Unit Forms

Attachment F - Schedule Of Compliance Forms

Attachment G - Air Pollution Control Device Forms

Attachment H - Compliance Assurance Monitoring (CAM) Forms

Table 4. Revisions to Attachment G - Air Pollution Control Device Forms

Introduction

U.S. Silica submitted a Title V permit renewal application to the West Virginia Department of Environmental Protection (WVDEP) in August 2018 to fulfill the permit requirements for a major air pollution emission source. The WVDEP issued a Permit to Operate pursuant to Title V of the Clean Air Act on **May 7, 2019** (Permit No. R30-06500001-2019). This permit will expire on May 7, 2024. The WVDEP requires renewal applications for Title V permits to be submitted no earlier than 12 months and no later than 6 months before the expiration date. As such, the facility must submit its renewal application before November 7, 2023. The following document provides the information required for the renewal application. For completeness the following information is submitted:

- A signed copy of the application (at least one must contain the original “Certification” page signed and dated in blue ink).
- Table of Contents.
- Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios.
- Area map showing plant location and plot plan showing buildings and process areas.
- Process flow diagram(s), showing all emission units, control equipment, emission points, and the ir relationships.
- Identification of all applicable requirements with a description of the compliance status and the methods used for demonstrating compliance.
- The facility is in compliance with all applicable requirements; as such, a Schedule of Compliance Form (ATTACHMENT F) is not included.
- A listing of all active permits and consent orders is included in the General Application Forms.
- The facility-wide emissions summary is included in the General Application Forms.
- Identification of Insignificant Activities is included in the General Application Forms.
- ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities.
- ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D). Detailed Facility-wide emission calculations are included as supplement to Attachment E.
- ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D).
- ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G).
- The General Application Forms have been signed by a Responsible Official.
- The facility is not seeking confidential information status for this submittal.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (U.S. Silica Company), 2. Facility Name (Berkeley Springs Plant), 3. DAQ Plant ID No. (065-00001), 4. Federal Employer ID No. (FEIN) (23-0958670), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (78), 9. Governmental Code (Privately owned and operated; 0), 10. Business Confidentiality Claims (No).

11. Mailing Address		
Street or P.O. Box: P.O. Box 187		
City: Berkeley Springs	State: West Virginia	Zip: 25411
Telephone Number: (304) 258-2500	Fax Number: (304) 258-8293	

12. Facility Location					
Street: Route 522 North		City: Berkeley Springs		County: Morgan	
UTM Easting: 739.55	km	UTM Northing: 4393.48	km	Zone: 17 or <input type="checkbox"/> 18	
Directions: Three miles north of Berkeley Springs off of Route 522.					
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input type="checkbox"/> No				If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				If yes, name the affected state (s). Maryland Pennsylvania	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
<small>¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</small>					

13. Contact Information		
Responsible Official: Jason Bish		Title: Vice President of EHS, U.S. Silica Company
Street or P.O. Box: 2496 Hancock Road		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number:	Fax Number: N/A	
E-mail address:		
Environmental Contact: Brad Davis		Title: EHS Manager
Street or P.O. Box: 2496 Hancock Rd		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number: (304) 702-5515	Fax Number: N/A	
E-mail address: DavisBra@ussilica.com		
Application Preparer: S/A		Title: S/A
Company: U.S. Silica Company		
Street or P.O. Box: S/A		
City:	State:	Zip:
Tele phone Number:	Fax Number:	
E-mail address:		

14. Facility Description

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

Process	Products	NAICS	SIC
Industrial Sand Mining and Processing	Silica Sand Products	212322	1446

Provide a general description of operations.

Sandstone is mined and processed into unground, ground and micronized silica sand products. Processes include the following:

- Mining
- Crushing
- Screening
- Drying
- Milling
- Classification
- Limestone System
- Packaging and Bulk Loading

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

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

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

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non-Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
<input type="checkbox"/> Permit Shield

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

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

Permit Shield

20. Facility-Wide Applicable Requirements

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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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)]

R30-06500001-2014 (MM 01 & MM 02) 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 (M VACs) 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]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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 45CSR§7-3.2. [45CSR§7-3.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. [45CSR§7-3.7] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.11. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7. [45CSR§7-4.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.12. No person shall circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. [45CSR§7-4.3]

R30-06500001-2014 (MM 01 & MM 02) 3.1.13. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. [45CSR§7-5.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.14. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR§ 7-5.2] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

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

Monitoring Requirements

R30-06500001-2014 (MM 01 & MM 02) 3.2.1. Each Process Source Operation (See Note below) with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions from any of the Process Source Operation are observed during these weekly observations, or at any other time, that appear to exceed the allowable visible emission requirement for the Process Source Operation, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than one month from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition Section 3.2.1 if the visible emissions condition is corrected in a timely manner; the Process Source Operation is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§ 30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.2.2. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems monthly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.

Preventive maintenance inspections of potential fugitive dust sources, such as outdoor conveying systems, transfer points, and bulk loadouts will be conducted on a periodic basis by operations personnel. This is in addition to the monthly inspections required above.

Parking lots, roadways, other vehicle travel areas, and storage piles will be regularly observed by trained personnel to determine the need for fugitive dust control. A water truck must be available for control of dust on roadways and parking lots on an as needed basis. The water truck will be included in the facility's preventive maintenance program. Dates of water truck usage will be provided on the Pre-Shift Inspection Reports maintained by the Quarry office.

U.S. Silica shall keep all maintenance and preventive maintenance records via a mainframe computer system. [45CSR§30-5.1.c.]

Note : Process Source operations include the following : Primary Crushing Plant, Secondary Crushing Plant, Wet Processing Plant, Screening and unground sand Processing, Milling, 10/15/30/40 Micron Classification, 5 Micron Classification, Wet Float Plant & Storage Structures.

R30-06500001-2014 (MM 01 & MM 02) 3.2.3. (Note: The following section numbers match those of 40 C.F.R. §64.7)

(b) *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) *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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) 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 this part, 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.

(d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator 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.

(2) Determination of whether the owner or operator 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.

(e) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator 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 owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 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.
[40CFR§64.7; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 3.2.4. (Note: The following section numbers match those of 40 C.F.R. §64.8)

§ 64.8 Quality improvement plan (QIP) requirements.

- (a) Based on the results of a determination made under § 64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with § 64.6(c)(3), the part 70 or 71 permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.
- (b) Elements of a QIP:
 - (1) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
 - (2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
 - (i) Improved preventive maintenance practices.
 - (ii) Process operation changes.
 - (iii) Appropriate improvements to control methods.
 - (iv) Other steps appropriate to correct control performance.
 - (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (b)(2)(i) through (iv) of this section).
- (c) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (d) Following implementation of a QIP, upon any subsequent determination pursuant to § 64.7(d)(2) the Administrator or the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (e) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40CFR§64.8; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

Testing Requirements

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.2. Except as provided in the terms and conditions of specific emission units, the permittee shall conduct stack tests upon request by Director, establish parameter indicator ranges, and furnish the Secretary a written report of the results of such testing and established indicator ranges. The permittee shall use Method 5 or an alternative method approved by the Secretary for such testing. For wet scrubber control devices, parameter indicator ranges shall be established for the water pressure to the control equipment and the pressure loss of the inlet airflow to the scrubber. The permittee shall establish parameter indicator ranges and operate within these ranges to provide a reasonable assurance that the emission unit is in compliance with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of 45CSR7A;
- b. Amount of material processed;
- c. Water pressure to the control equipment; and
- d. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the

control equipment.

These records shall be maintained on site and in accordance with 3.4.2.

[45CSR§30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.3.3. 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.4. 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]

Recordkeeping Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

[45CSR13, R13-2145, 4.4.1.] (SCREN 7-9, 14-15; BE01; BE02; LS01; CF #36; CF #6)

R30-06500001-2014 (MM 01 & MM 02) 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.][45CSR13, R13-0715, A.11; R13-2595, B.9]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.4.4. 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 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.]

Reporting Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.5.7. Emergencies. For reporting emergency situations, refer to Section 2.17 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 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:

4. 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.

5. 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.

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

7. 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

Permit Shield

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

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

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	13.75
Nitrogen Oxides (NO _x)	96.35
Lead (Pb)	0.21
Particulate Matter (PM _{2.5}) ¹	114.30
Particulate Matter (PM ₁₀) ¹	239.20
Total Particulate Matter (TSP)	534.96
Sulfur Dioxide (SO ₂)	267.00
Volatile Organic Compounds (VOC)	1.29
Hazardous Air Pollutants ²	Potential Emissions
Total HAP	2.323
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Carbon Dioxide (CO ₂)	61,682.95
Methane (CH ₄)	2.54
Nitrous Oxide (N ₂ O)	0.51

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	19. Emission units which do not have any applicable requirements, and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: <u>All organic liquid tanks listed in Attachment D</u>
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements, and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

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

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

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

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification

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

Responsible official (type or print)

Name: Jason Bish

Title: Vice President of EHS

Responsible official's signature:

Signature: 

Signature Date: 10/23/23

(Must be signed and dated in blue ink)

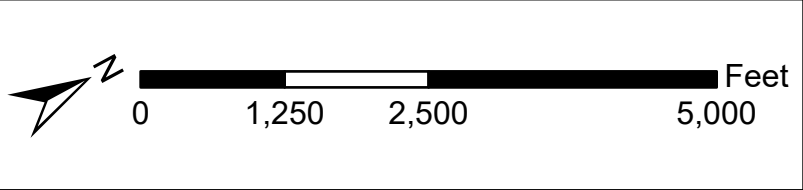
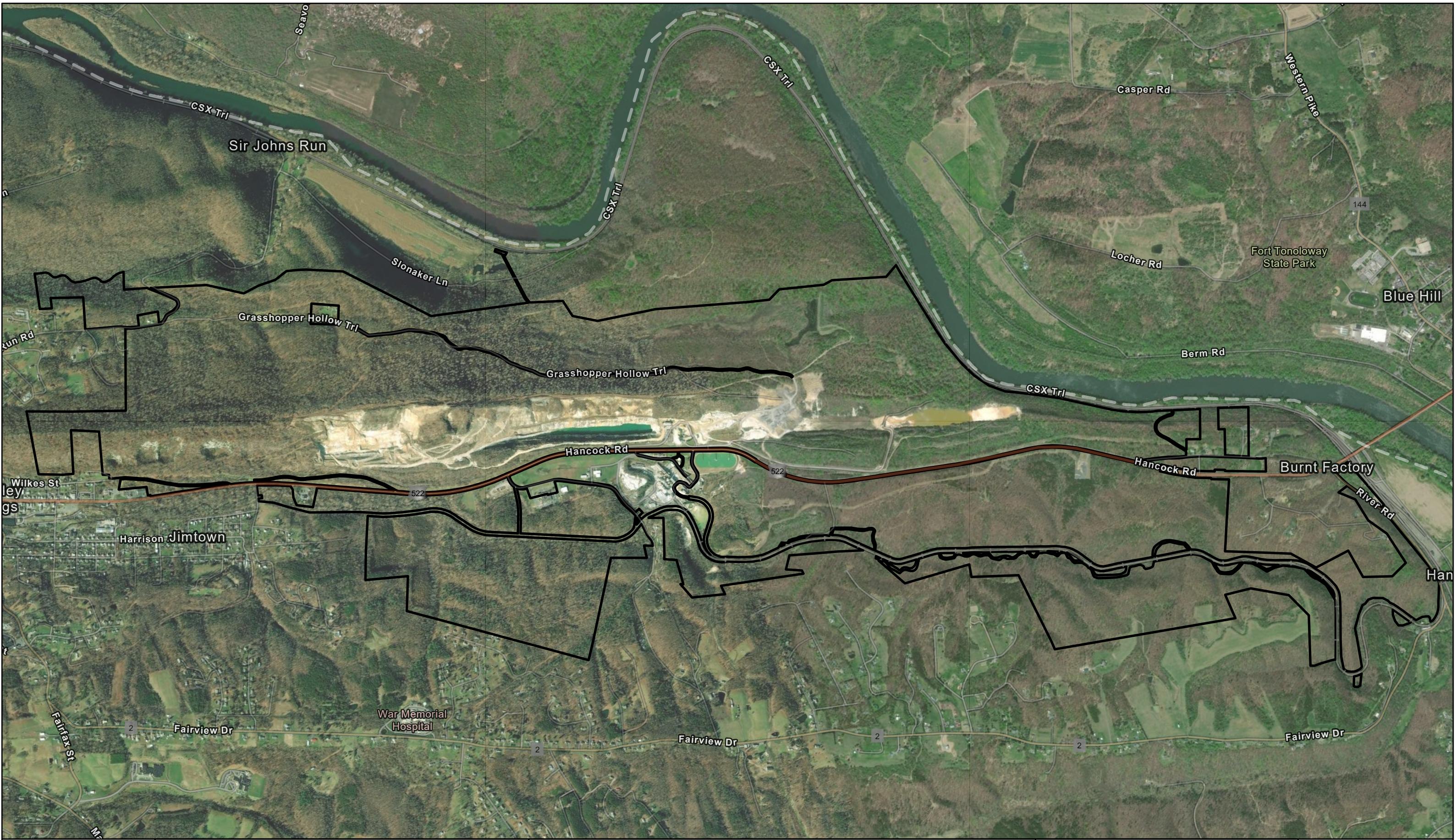
Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s) (Not Applicable Based on Compliance Status)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) (Included but No Changes to Prior Version)

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

Attachment A

Area Map



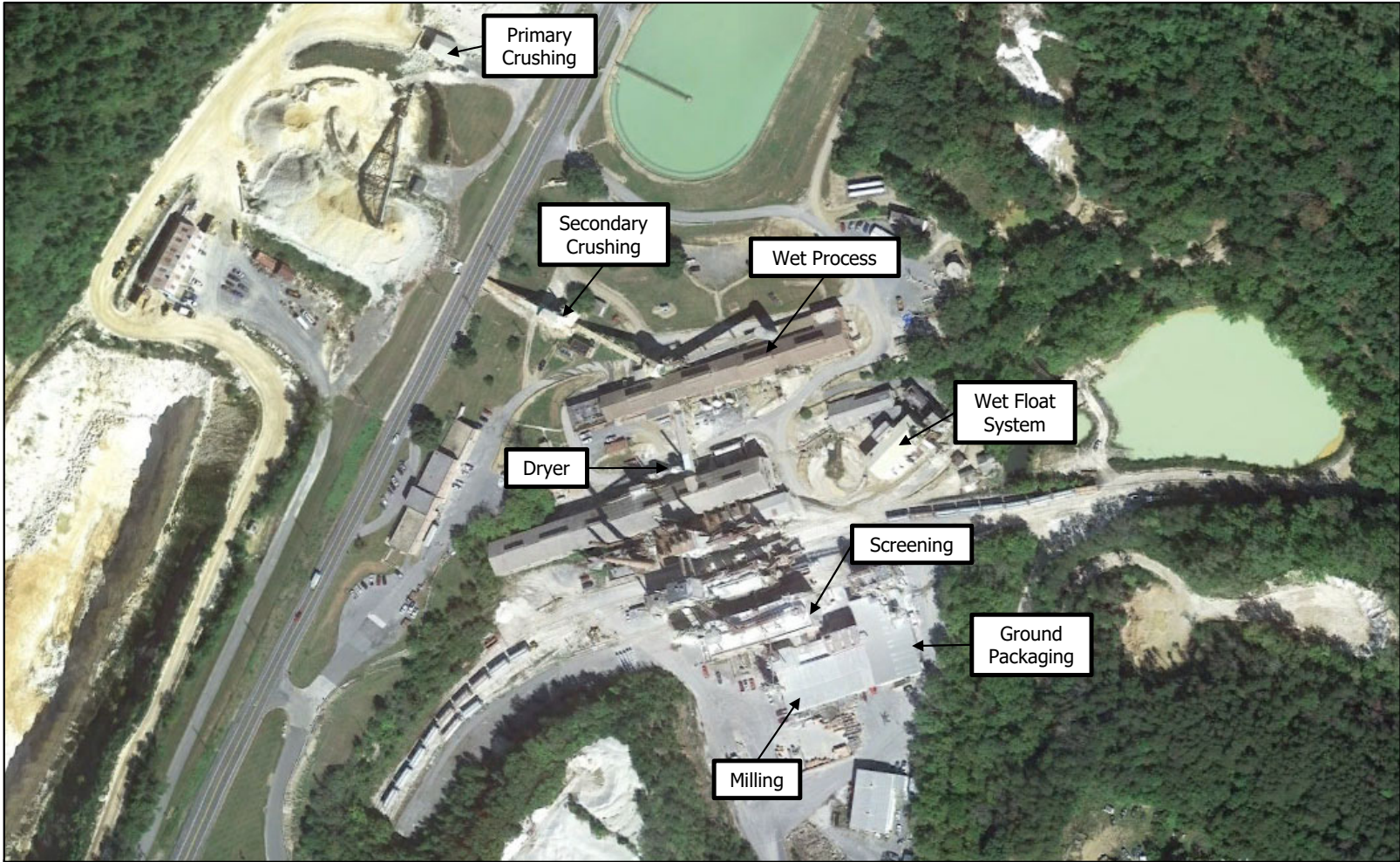
Berkeley Facility Site Map

Property Outline

Created By: T. A. Lindblad
Date: 10052023
File Location: \\BerkeleyWestVirginia\Outline

Attachment B

Plot Plan



 Environmental Department		Berkeley Facility Plot Plan	
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Attachment C

Process Flow Diagram

Figure 1. Primary and Secondary Crushing

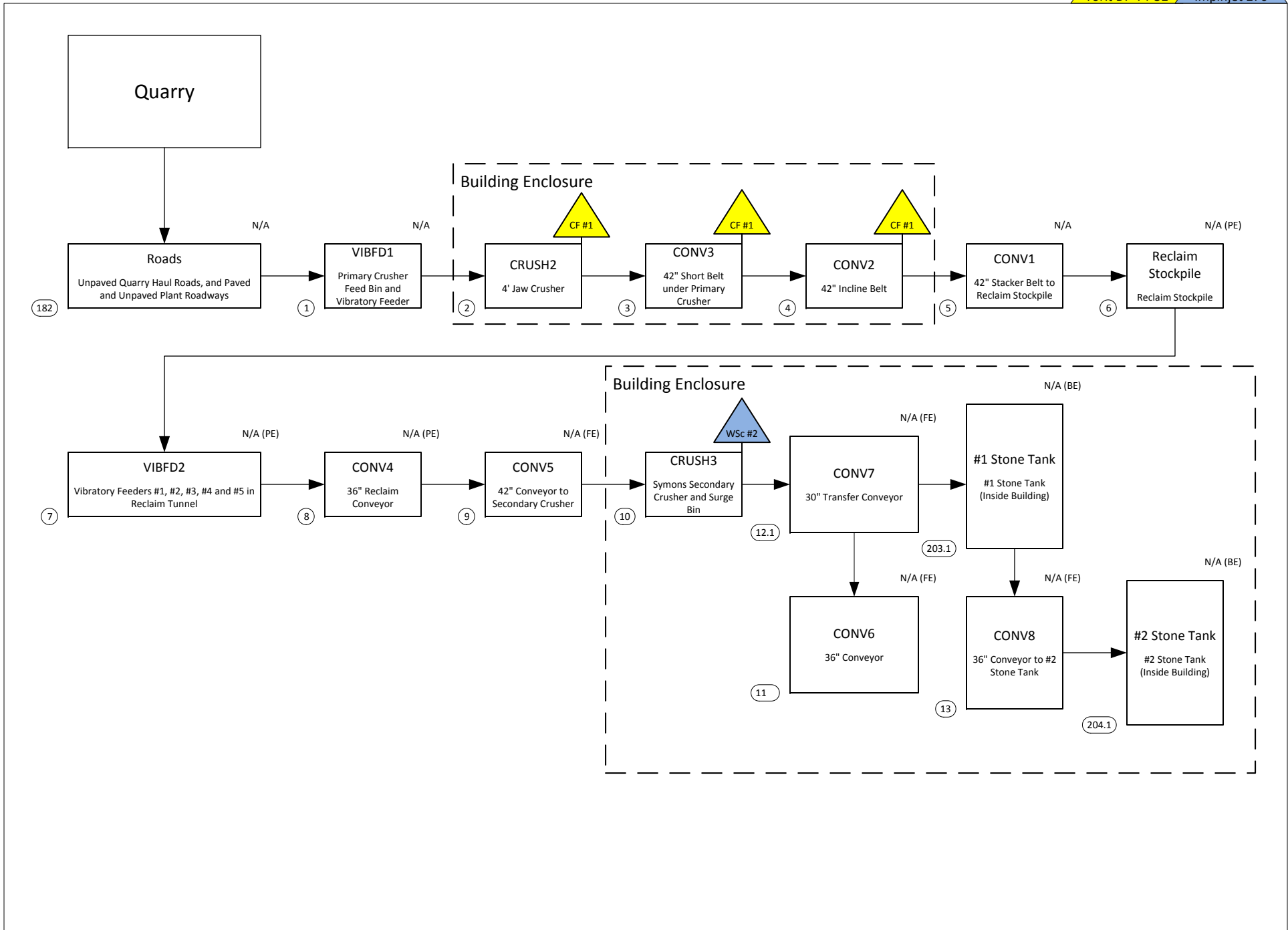


Figure 2. Wet Processing Plant (Rod Mill Building)

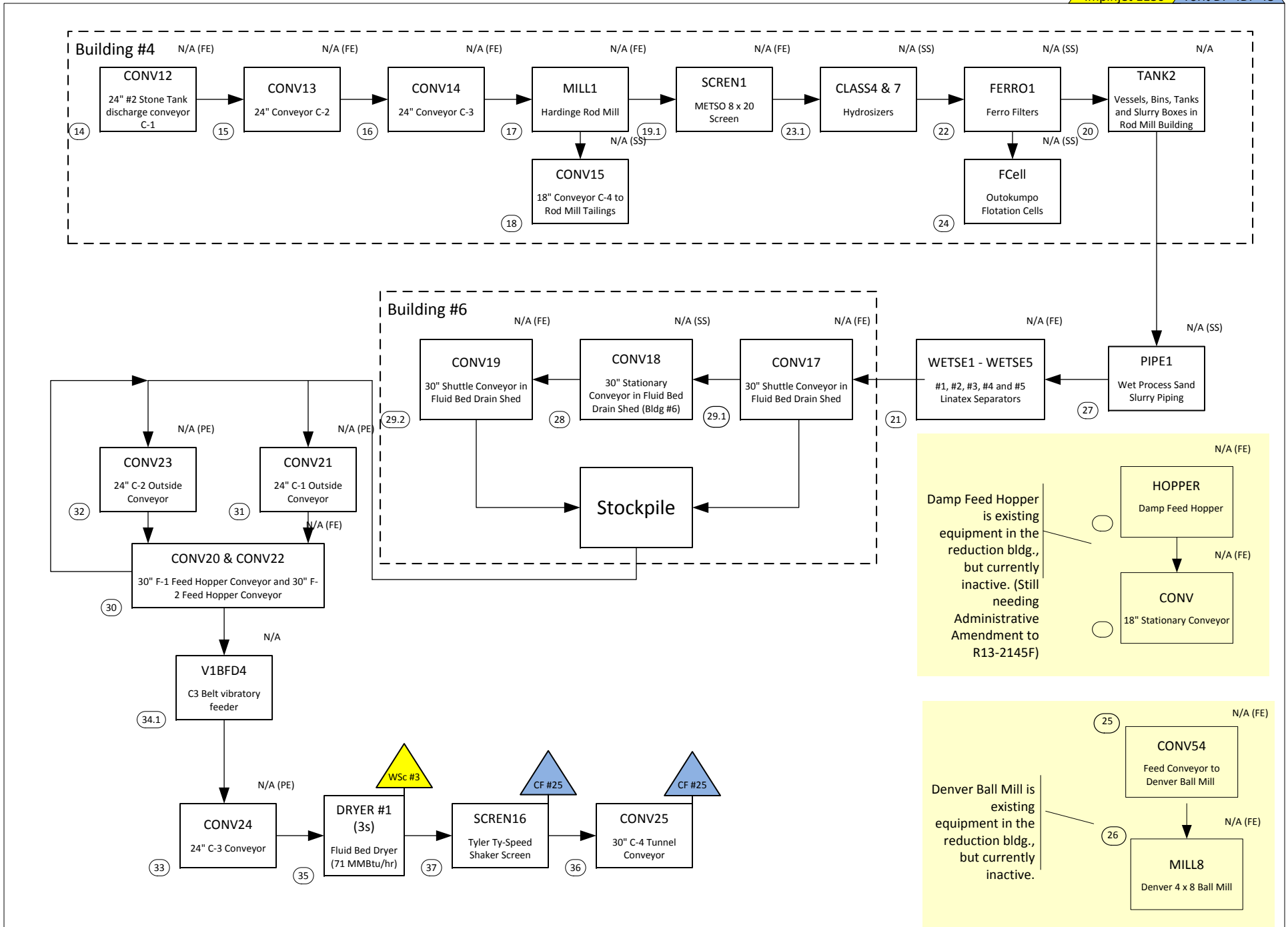


Figure 3. Wet Float System (Currently Inactive)

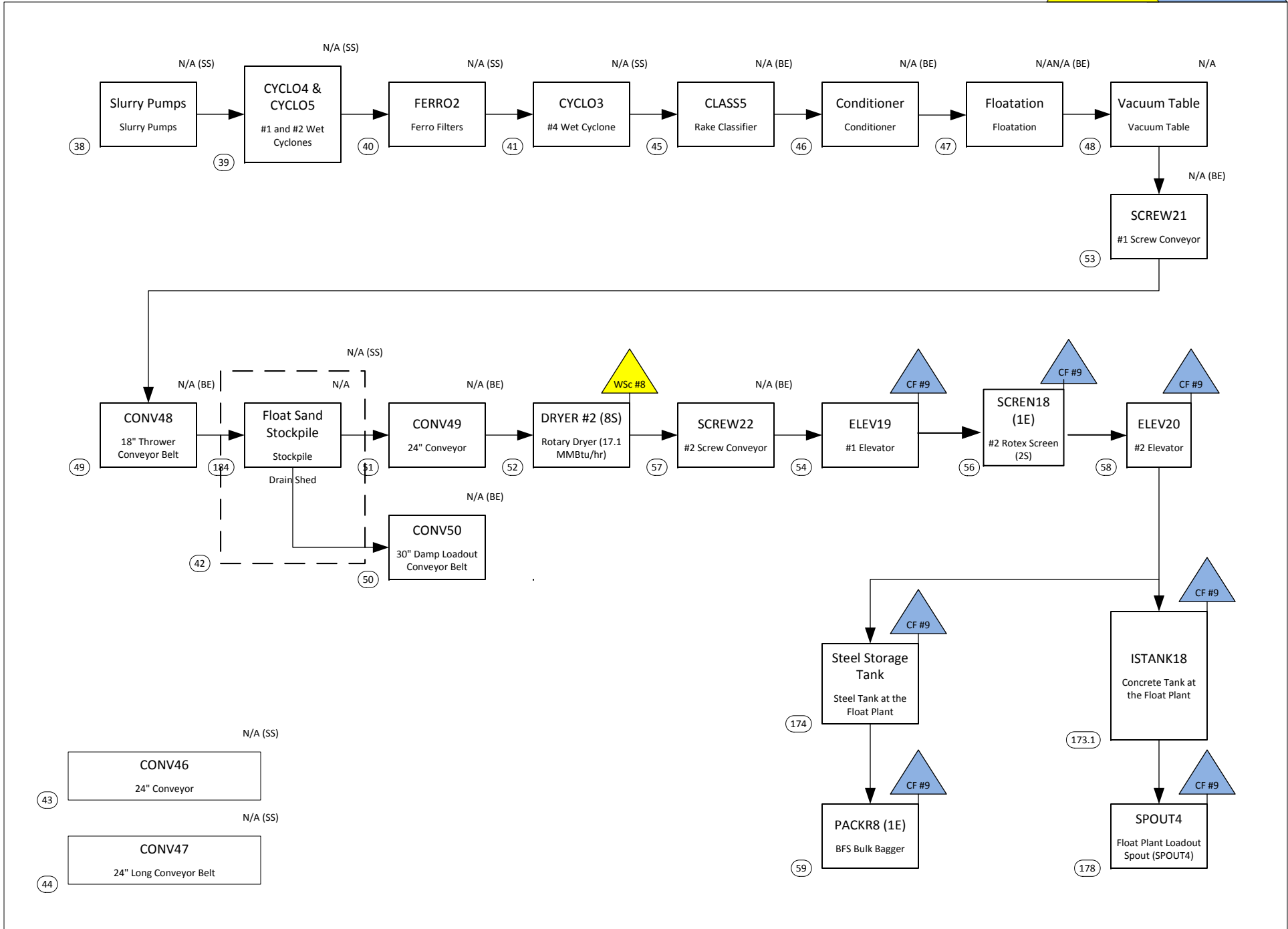


Figure 4. Screening and Uground Sand Processing (6-4-13)

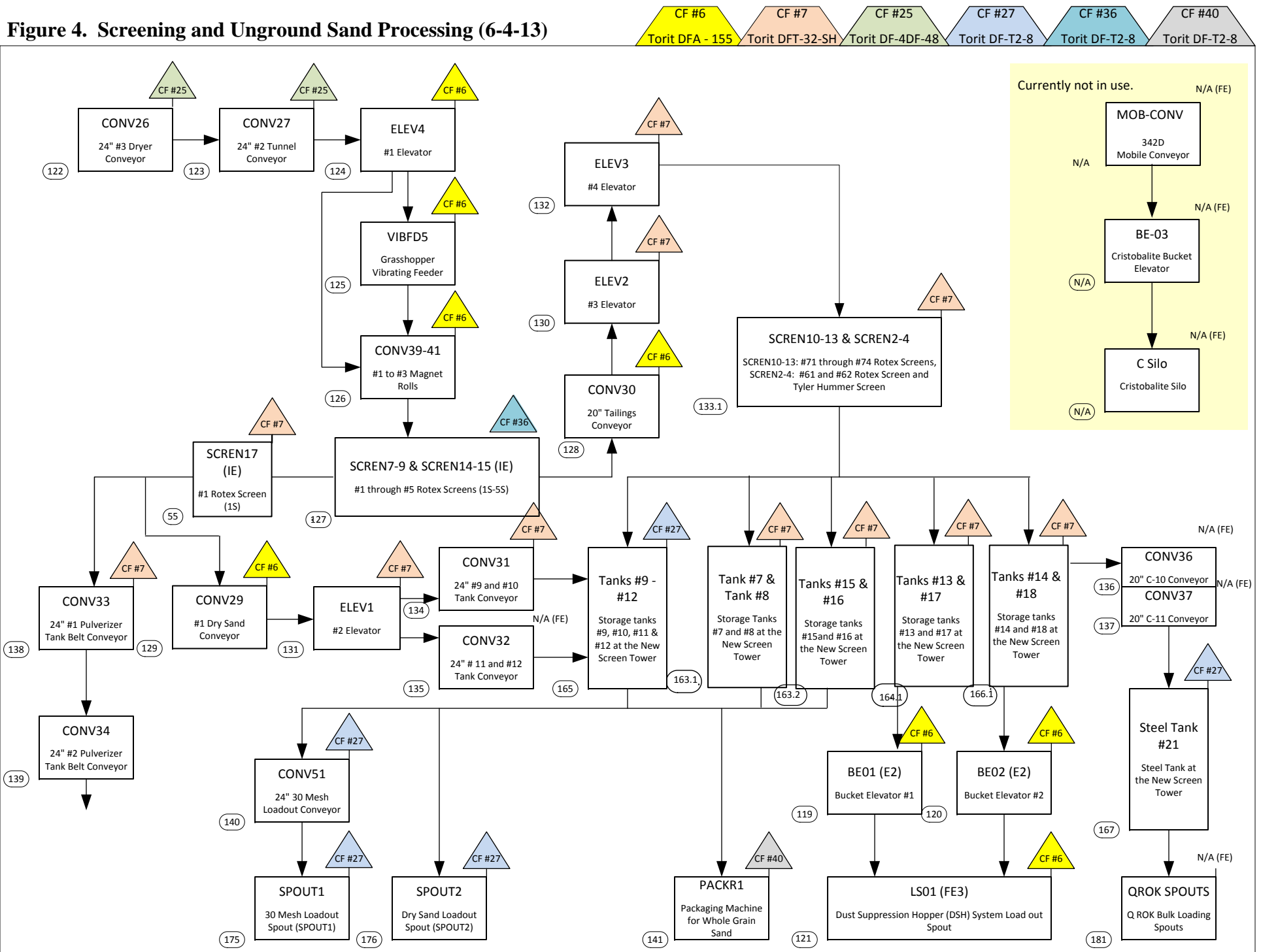


Figure 5. Milling - #1 through #4 Pebble Mills

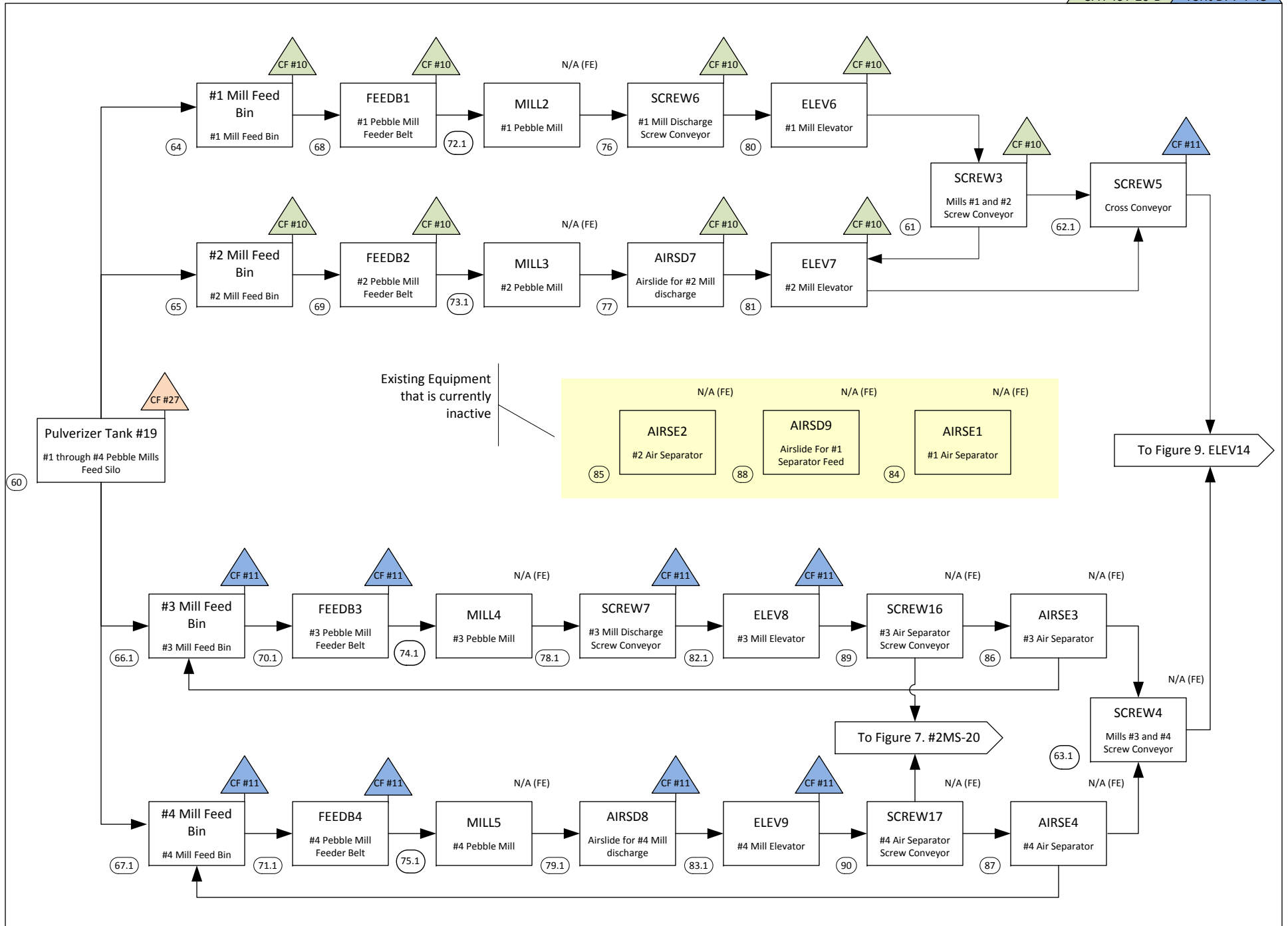


Figure 6. Milling - #5 and #6 Pebble Mills, and Coarse Ground Special Circuit

CF #12 CFH 40T-20-B
 CF #27 Torit DF-T2-8
 CF #41 DFT2-4-155

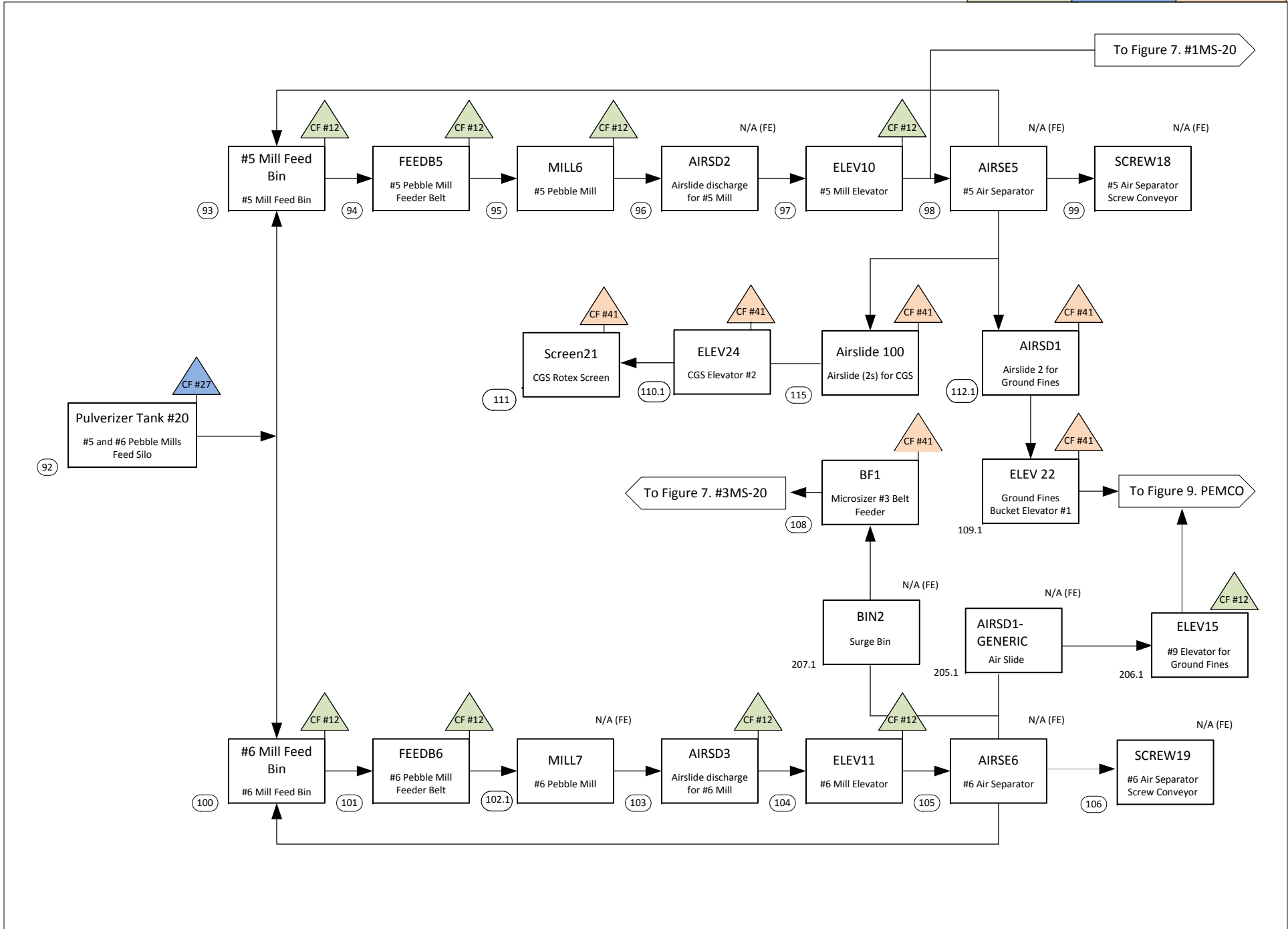


Figure 7. Micro-sizer Classification 10/20/30/40 Micron

CF #42 DFT-3-6
 CF #11 CFH 40T-20-B
 CF #12 CFH 40T-20-B

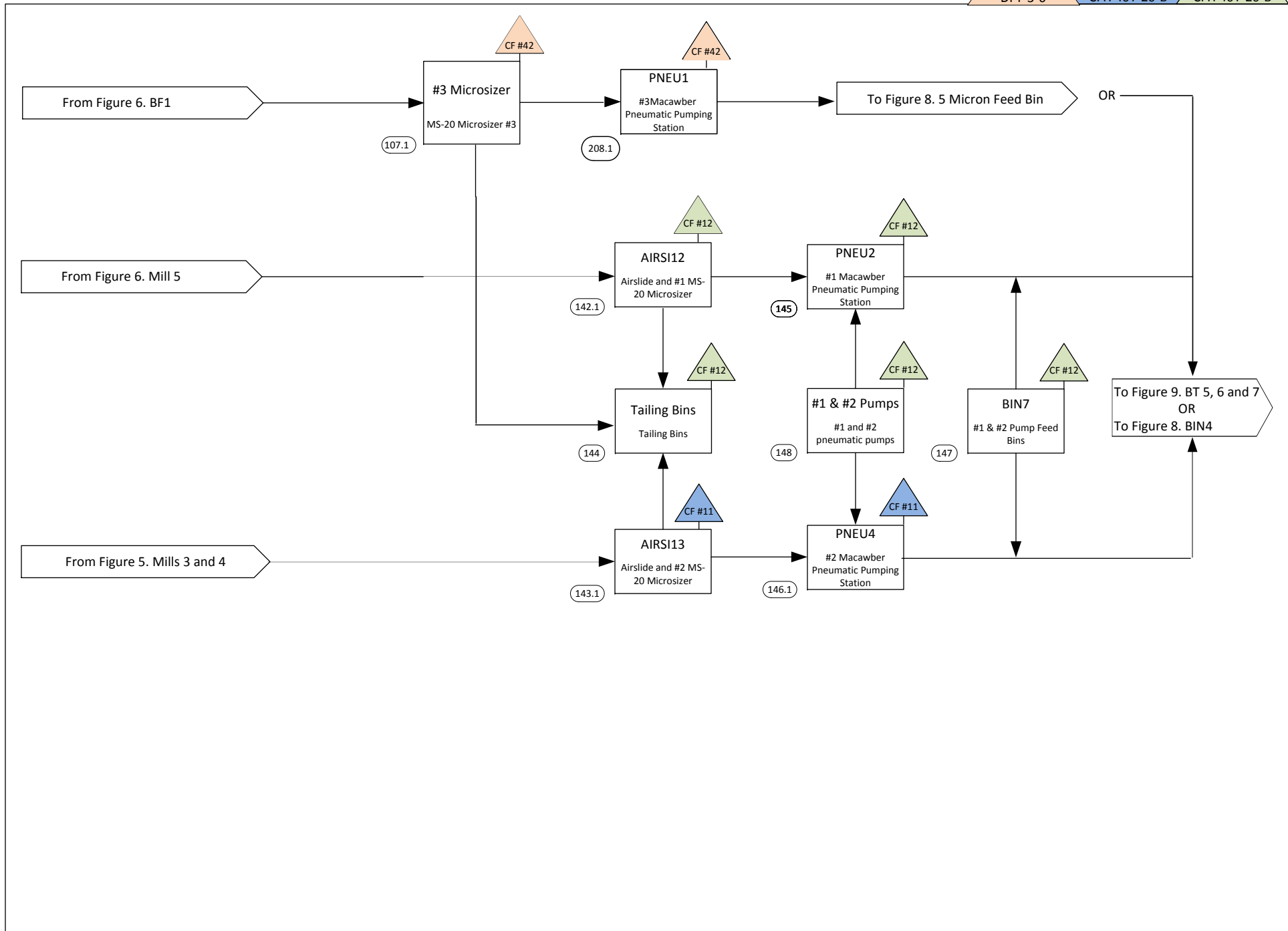


Figure 8. 5 Micron Classification, Loading and Packaging

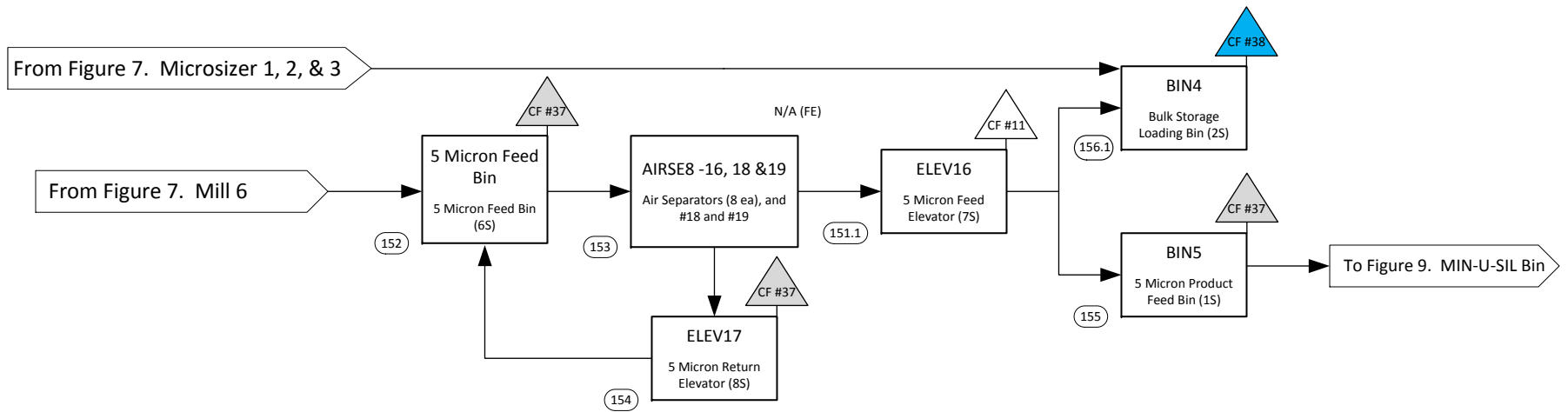


Figure 9. Loading and Packaging

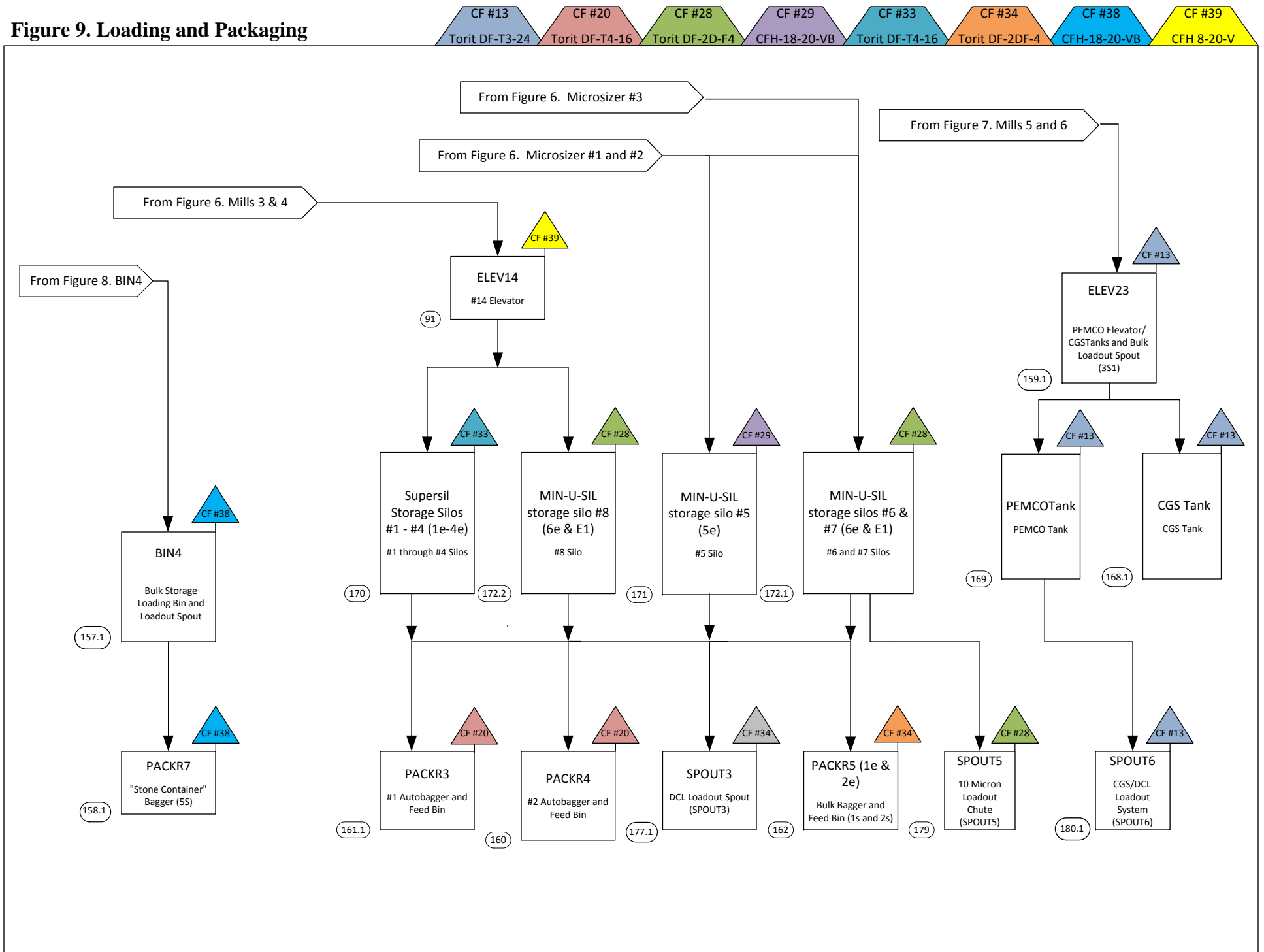
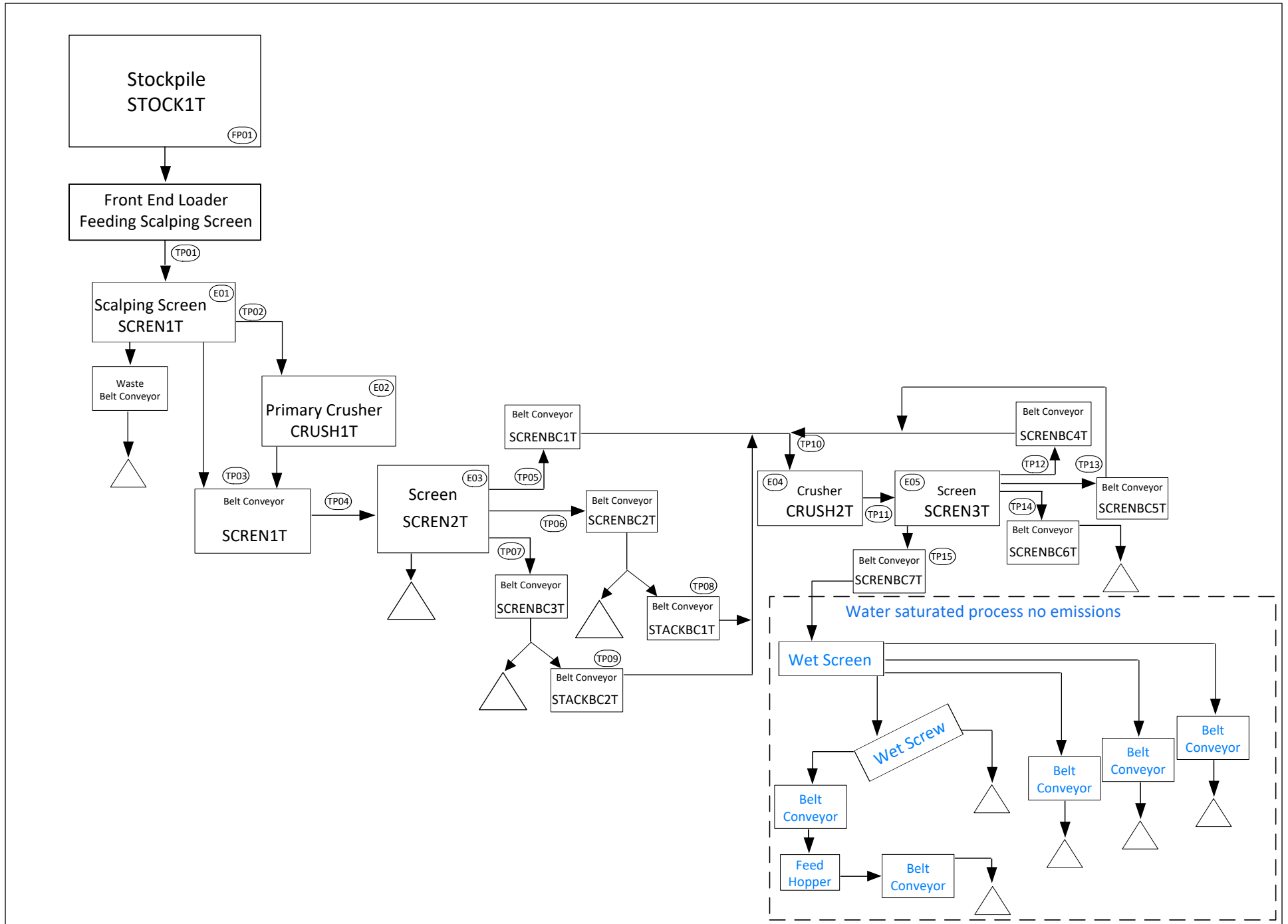


Figure 10. Limestone Processing Plant



Attachment D

Equipment Table

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
Primary Crushing Plant						
1	N/A	N/A	VIBFD1	Primary Crusher Feed Bin and Vibratory Feeder	1000	Pre-1970
2	Stack #1	CF #1	CRUSH2	4' Jaw Crusher	800	Pre-1970
3	Stack #1	CF #1	CONV3	42" Short Belt under Primary Crusher	800	Pre-1970
4	Stack #1	CF #1	CONV2	42" Incline Belt	800	Pre-1970
5	N/A	N/A	CONV1	42" Stacker Belt to Reclaim Stockpile	800	Pre-1970
6	Reclaim Stockpile	N/A (PE)	Reclaim Stockpile	Reclaim Stockpile	800	Pre-1970
Secondary Crushing Plant						
7	N/A	N/A (PE)	VIBFD2	Vibratory Feeders #1, #2, #3, #4 and #5 in Reclaim Tunnel	400	Pre-1970
8	N/A	N/A (PE)	CONV4	36" Reclaim Conveyor	400	Pre-1970
9	N/A	N/A (FE)	CONV5	42" Conveyor to Secondary Crusher	400	Pre-1970
10	Stack #2	WSc #2	CRUSH3	Symons Secondary Crusher and Surge Bin	400	Pre-1970
11	N/A	N/A (FE)	CONV6	36" Conveyor	400	Pre-1970
12.1	N/A	N/A (FE)	CONV7	30" Transfer Conveyor	400	Pre-1970
13	N/A	N/A (FE)	CONV8	36" Conveyor to #2 Stone Tank	400	Pre-1970
Wet Processing Plant (Rod Mill Building)						
14	N/A	N/A (FE)	CONV12	24" #2 Stone Tank discharge conveyor C-1	200	Pre-1970
15	N/A	N/A (FE)	CONV13	24" Conveyor C-2	200	Pre-1970
16	N/A	N/A (FE)	CONV14	24" Conveyor C-3	200	Pre-1970
17	N/A	N/A (FE)	MILL1	Hardinge Rod Mill	200	Pre-1970
18	N/A	N/A (SS)	CONV15	18" Conveyor C-4 to Rod Mill Tailings	150	Pre-1970
19.1	N/A	N/A (FE)	SCREN1	METSO 8 x 20 Screen	200	Pre-1970
20	N/A	N/A	TANK2	Vessels, Bins, Tanks and Slurry Boxes in Rod Mill Building	200	Pre-1970
21	N/A	N/A (FE)	WETSE1 - WETSE5	#1, #2, #3, #4 and #5 Linatex Separators	200	Pre-1970
22	N/A	N/A (SS)	FERRO1	Ferro Filters	200	Pre-1970
23.1	N/A	N/A (SS)	CLASS4&7	Hydrosizers	200	Pre-1970
24	N/A	N/A (SS)	FCell	Outokumpo Flotation Cells	160	2004
25	N/A	N/A (FE)	CONV54	Feed Conveyor to Denver Ball Mill	50	2000
26	N/A	N/A (FE)	MILL8	Denver 4 x 8 Ball Mill	50	2000
27	N/A	N/A (SS)	PIPE1	Wet Process Sand Slurry Piping	200	Pre-1970
28	N/A	N/A (SS)	CONV18	30" Stationary Conveyor in Fluid Bed Drain Shed (Bldg #6)	200	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
29.1	N/A	N/A (FE)	CONV17	30" Shuttle Conveyor in Fluid Bed Drain Shed	200	Pre-1970
29.2	N/A	N/A (FE)	CONV19	30" Shuttle Conveyor in Fluid Bed Drain Shed	200	Pre-1970
30	N/A	N/A (FE)	CONV20 & CONV22	30" F-1 Feed Hopper Conveyor and 30" F-2 Feed Hopper Conveyor	200	1975
31	N/A	N/A (PE)	CONV21	24" C-1 Outside Conveyor	200	1975
32	N/A	N/A (PE)	CONV23	24" C-2 Outside Conveyor	200	1975
33	N/A	N/A (PE)	CONV24	24" C-3 Conveyor	200	1975
34.1	N/A	N/A	V1BFD4	C3 Belt, Vibratory Feeder	200	1975
35	Stack #3	WSc #3	DRYER #1 (3s)	Fluid Bed Dryer (71 MMBtu/hr)	200	1975
36	Stack #25	CF #25	CONV25	30" C-4 Tunnel Conveyor	200	1975
37	Stack #25	CF #25	SCREN16	Tyler Ty-Speed Shaker Screen	200	1995
Wet Float Plant						
38	N/A	N/A (SS)	Slurry Pumps	Slurry Pumps	25	Pre-1948
39	N/A	N/A (SS)	CYCLO4 & CYCLO5	#1 and #2 Wet Cyclones	25	Pre-1948
40	N/A	N/A (SS)	FERRO2	Ferro Filters	25	Pre-1948
41	N/A	N/A (SS)	CYCLO3	#4 Wet Cyclone	25	Pre-1948
42	N/A	N/A (SS)	Drain Shed	Drain Shed	25	Pre-1948
43	N/A	N/A (SS)	CONV46	24" Conveyor	25	Pre-1970
44	N/A	N/A (SS)	CONV47	24" Long Conveyor Belt	25	Pre-1970
45	N/A	N/A (BE)	CLASS5	Rake Classifier	25	Pre-1970
46	N/A	N/A (BE)	Conditioner	Conditioner	25	Pre-1970
47	N/A	N/A (BE)	Floatation	Floatation	25	Pre-1970
48	N/A	N/A	Vacuum Table	Vacuum Table	25	Pre-1970
49	N/A	N/A (BE)	CONV48	18" Thrower Conveyor Belt	25	Pre-1970
50	N/A	N/A (BE)	CONV50	30" Damp Loadout Conveyor Belt	25	Pre-1970
51	N/A	N/A (BE)	CONV49	24" Conveyor	25	Pre-1970
52	Stack #8	WSc #8	DRYER #2 (8S)	Rotary Dryer (17.1 MMBtu/hr)	25	Pre-1970
53	N/A	N/A (BE)	SCREW21	#1 Screw Conveyor	25	Pre-1970
54	Stack #9	CF #9	ELEV19	#1 Elevator	25	Pre-1970
56	Stack #9	CF #9	SCREN18 (1E)	#2 Rotex Screen (2S)	50	1999
57	N/A	N/A (BE)	SCREW22	#2 Screw Conveyor	25	Pre-1970
58	Stack #9	CF #9	ELEV20	#2 Elevator	25	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
59	Stack #9	CF #9	PACKR8 (1E)	BFS Bulk Bagger	30	1998
Milling Process						
60	Stack #27	CF #27	Pulverizer Tank #19	#1 through #4 Pebble Mills Feed Silo	150	Pre-1970
61	Stack #10	CF #10	SCREW3	Mills #1 and #2 Screw Conveyor	30	Pre-1970
62.1	Stack #11	CF #11	SCREW5	Cross Conveyor	30	Pre-1970
63.1	N/A	N/A (FE)	SCREW4	Mills #3 and #4 Screw Conveyor	30	Pre-1970
64	Stack #10	CF #10	#1 Mill Feed Bin	#1 Mill Feed Bin	100	Pre-1970
65	Stack #10	CF #10	#2 Mill Feed Bin	#2 Mill Feed Bin	100	Pre-1970
66.1	Stack #11	CF #11	#3 Mill Feed Bin	#3 Mill Feed Bin	100	Pre-1970
67.1	Stack #11	CF #11	#4 Mill Feed Bin	#4 Mill Feed Bin	100	Pre-1970
68	Stack #10	CF #10	FEEDB1	#1 Pebble Mill Feeder Belt	15	Pre-1970
69	Stack #10	CF #10	FEEDB2	#2 Pebble Mill Feeder Belt	15	Pre-1970
70.1	Stack #11	CF #11	FEEDB3	#3 Pebble Mill Feeder Belt	15	Pre-1970
71.1	Stack #11	CF #11	FEEDB4	#4 Pebble Mill Feeder Belt	15	Pre-1970
72.1	N/A	N/A (FE)	MILL2	#1 Pebble Mill	100	Pre-1970
73.1	N/A	N/A (FE)	MILL3	#2 Pebble Mill	100	Pre-1970
74.1	N/A	N/A (FE)	MILL4	#3 Pebble Mill	100	Pre-1970
75.1	N/A	N/A (FE)	MILL5	#4 Pebble Mill	100	Pre-1970
76	Stack #10	CF #10	SCREW6	#1 Mill Discharge Screw Conveyor	100	Pre-1970
77	Stack #10	CF #10	AIRSD7	Airslide for #2 Mill discharge	100	Pre-1970
78.1	Stack #11	CF #11	SCREW7	#3 Mill Discharge Screw Conveyor	100	Pre-1970
79.1	Stack #11	CF #11	AIRSD8	Airslide for #4 Mill discharge	100	Pre-1970
80	Stack #10	CF #10	ELEV6	#1 Mill Elevator	100	Pre-1970
81	Stack #10	CF #10	ELEV7	#2 Mill Elevator	100	Pre-1970
82.1	Stack #11	CF #11	ELEV8	#3 Mill Elevator	100	Pre-1970
83.1	Stack #11	CF #11	ELEV9	#4 Mill Elevator	100	Pre-1970
84	N/A	N/A (FE)	AIRSE1	#1 Air Separator	100	Pre-1970
85	N/A	N/A (FE)	AIRSE2	#2 Air Separator	100	Pre-1970
86	N/A	N/A (FE)	AIRSE3	#3 Air Separator	100	Pre-1970
87	N/A	N/A (FE)	AIRSE4	#4 Air Separator	100	Pre-1970
88	N/A	N/A (FE)	AIRSD9	Airslide for #1 Separator Feed	100	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
89	N/A	N/A (FE)	SCREW16	#3 Air Separator Screw Conveyor	100	Pre-1970
90	N/A	N/A (FE)	SCREW17	#4 Air Separator Screw Conveyor	100	Pre-1970
91	Stack #39	CF #39	ELEV14	#14 Elevator	150	Pre-1970
92	Stack #27	CF #27	Pulverizer Tank #20	#5 and #6 Pebble Mills Feed Silo	150	Pre-1970
93	Stack #12	CF #12	#5 Mill Feed Bin	#5 Mill Feed Bin	100	Pre-1970
94	Stack #12	CF #12	FEEDB5	#5 Pebble Mill Feeder Belt	15	Pre-1970
95	Stack #12	CF #12	MILL6	#5 Pebble Mill	100	Pre-1970
96	N/A	N/A (FE)	AIRSD2	Airslide discharge for #5 Mill	100	Pre-1970
97	Stack #12	CF #12	ELEV10	#5 Mill Elevator	100	Pre-1970
98	N/A	N/A (FE)	AIRSE5	#5 Air Separator	100	Pre-1970
99	N/A	N/A (FE)	SCREW18	#5 Air Separator Screw Conveyor	100	Pre-1970
100	Stack #12	CF #12	#6 Mill Feed Bin	#6 Mill Feed Bin	100	Pre-1970
101	Stack #12	CF #12	FEEDB6	#6 Pebble Mill Feeder Belt	15	Pre-1970
102.1	N/A	N/A (FE)	MILL7	#6 Pebble Mill	100	Pre-1970
103	Stack #12	CF #12	AIRSD3	Airslide discharge for #6 Mill	100	Pre-1970
104	Stack #12	CF #12	ELEV11	#6 Mill Elevator	100	Pre-1970
105	N/A	N/A (FE)	AIRSE6	#6 Air Separator	100	Pre-1970
106	N/A	N/A (FE)	SCREW19	#6 Air Separator Screw Conveyor	100	Pre-1970
108	Stack #41	CF #41	BF1	Microsizer #3 Belt Feeder	20	2005
109.1	Stack #41	CF #41	ELEV 22	Ground Fines Bucket Elevator #1	100	2005
110.1	Stack #41	CF #41	ELEV24	CGS Elevator #2	100	2005
111	Stack #41	CF #41	Screen21	CGS Rotex Screen	25	2005
112.1	Stack #41	CF #41	AIRSD1	Airslide 2 for Ground Fines	100	2005
115	Stack #41	CF #41	Airslide 100	Airslide (2s) for CGS	8	2005
205.1	N/A	N/A (FE)	AIRSD1-GENERIC	Generic EUID for Air Slides	100	N/A
206.1	Stack #12	CF #12	ELEV15	# 9 Bucket Elevator	100	Pre- 1970
207.1	N/A	N/A (FE)	BIN2	Surge Bin	100	Pre-1970
Screening and Unground Sand Processing						
	N/A	N/A (FE)	MOB-CONV	342D Mobile Conveyor	300	2017
	N/A	N/A (FE)	BE-03	Cristobalite Bucket Elevator #3	100	2017
	N/A	N/A (FE)	C Silo	Cristobalite Silo	150	2017

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
55	Stack #7	CF #7	SCREN17 (1E)	#1 Rotex Screen (1S)	50	2012
119	Stack #6	CF #6	BE01 (E2)	Bucket Elevator #1	150	2012
120	Stack #6	CF #6	BE02 (E2)	Bucket Elevator #2	150	2012
121	Stack #6	CF #6	LS01 (FE3)	Dust Suppression Hopper (DSH) System Load out Spout	150	2012
122	Stack #25	CF #25	CONV26	24" #3 Dryer Conveyor	200	Pre-1975
123	Stack #25	CF #25	CONV27	24" #2 Tunnel Conveyor	200	Pre-1975
124	Stack #6	CF #6	ELEV4	#1 Elevator	200	Pre-1975
125	Stack #6	CF #6	VIBFD5	Grasshopper Vibrating Feeder	200	1973
126	Stack #6	CF #6	CONV39-41	#1 to #3 Magnet Rolls	200	Pre-1975
127	Stack #36	CF #36	SCREN7-9 & SCREN14-15 (IE)	#1 through #5 Rotex Screens (1S-5S)	375	1995-1997
128	Stack #6	CF #6	CONV 30	20" Tailings Conveyor	30	Pre-1975
129	Stack #6	CF #6	CONV29	#1 Dry Sand Conveyor	175	Pre-1975
130	Stack #7	CF #7	ELEV2	#3 Elevator	30	Pre-1975
131	Stack #7	CF #7	ELEV1	#2 Elevator	75	Pre-1975
132	Stack #7	CF #7	ELEV3	#4 Elevator	75	Pre-1975
133.1	Stack #7	CF #7	SCREN10-13 & SCREN2-4	SCREN10-13: #71 through #74 Rotex Screens, SCREN2-4: #61 and #62 Rotex Screens and Tyler Hummer Screen	75	Modified 1996 Pre-1975
134	Stack #7	CF #7	CONV31	24" #9 and #10 Tank Conveyor	75	Pre-1975
135	N/A	N/A (FE)	CONV32	24" # 11 and #12 Tank Conveyor	75	Pre-1975
136	N/A	N/A (FE)	CONV36	20" C-10 Conveyor	110	Pre-1975
137	N/A	N/A (FE)	CONV37	20" C-11 Conveyor	110	Pre-1975
138	Stack #7	CF #7	CONV33	24" #1 Pulverizer Tank Belt Conveyor	200	Pre-1975
139	N/A	N/A (FE)	CONV34	24" #2 Pulverizer Tank Belt Conveyor	200	Pre-1975
140	Stack #27	CF #27	CONV51	24" 30 Mesh Loadout Conveyor	200	Pre-1975
141	Stack #40	CF #40	PACKR1	Packaging Machine for Whole Grain Sand	36	Pre-1975
Classification (10/15/30/40 Micron)						
107.1	Stack #42	CF #42	Microsizer #3	MS-20 Microsizer #3	25	2005
142.1	Stack #12	CF #12	AIRSI12	Airslide and #1 MS-20 Microsizer	85	1996
143.1	Stack #11	CF #11	AIRSI13	Airslide and #2 MS-20 Microsizer	85	1996
144	Stack #12	CF #12	Tailing Bins	Tailing Bins	130	Pre-1975
145	Stack #12	CF #12	PNEU2	#1 Macawber Pneumatic Pumping Station	15	1996

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device ¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
146.1	Stack #11	CF #11	PNEU4	#2 Macawber Pneumatic Pumping Station	15	1996
147	Stack #12	CF #12	BIN7	#1 & #2 Pump Feed Bins	15	Pre-1975
148	Stack #12	CF #12	#1 & #2 Pumps	#1 and #2 pneumatic pumps	15	1996
208.1	Stack #42	CF #42	PNEU1	#3 Macawber Pneumatic Pumping Station	15	2017
5 Micron Classification						
151.1	Stack #11	CF #11	ELEV16	5 Micron Feed Elevator (7S)	150	1996
152	Stack #37	CF #37	5 Micron Feed Bin	5 Micron Feed Bin (6S)	150	1996
153	N/A	N/A (FE)	AIRSE8 -16, 18 & 19	Air Separators (8 ea), and #18 and #19	20	1973
154	Stack #37	CF #37	ELEV17	5 Micron Return Elevator (8S)	150	1996
155	Stack #37	CF #37	BIN5	5 Micron Product Feed Bin (1S)	10	1996
156.1	Stack #38	CF #38	BIN4	Bulk Storage Loading Bin(2S)	10	1996
158.1	Stack #38	CF #38	PACKR7	"Stone Container" Bagger (5S)	15	1996
159.1	Stack #13	CF #13	ELEV23	PEMCO Elevator/FCP Tanks and Bulk Loadout Spout (3S1)	100	Pre 1983
160	Stack #20	CF #20	PACKR4	#2 Autobagger and Feed Bin	20	1981
161.1	Stack #20	CF #20	PACKR3	#1 Autobagger and Feed Bin	20	1981
162	Stack #34	CF #34	PACKR5 (1e & 2e)	Bulk Bagger and Feed Bin (1s and 2s)	15	1988
Limestone System						
	FP01	N/A (WS)	STOCK1	Stockpile	~21	2021
	E02	N/A (WS)	CRUSH1	Primary Crusher	~21	2021
	E04	N/A (WS)	CRUSH2	Secondary cone crusher	~21	2021
	E01	N/A (WS)	SCREN1	scalping screener	~21	2021
	E03	N/A (WS)	SCREN2	screener	~21	2021
	E05	N/A (WS)	SCREN3	screener	~21	2021
	TP01	N/A (WS)	TRUCK1	Front end loader feeding scalping screen	~21	2021
	TP02	N/A (WS)	FEEDER1	Screen feeding crusher	~21	2021
	TP03	N/A (WS)	CRUSH1	Crusher onto belt conveyor	~21	2021
	TP04	N/A (WS)	SCREN1	Belt conveyor feeding screener	~21	2021
	TP05	N/A (WS)	SCRENBC1	Conveyor from Screener	~21	2021
	TP06	N/A (WS)	SCRENBC2	Conveyor from Screener	~21	2021
	TP07	N/A (WS)	SCRENBC3	Conveyor from Screener	~21	2021
	TP08	N/A (WS)	STACKBC1	Conveyor belt transfer	~21	2021

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
	TP09	N/A (WS)	STACKBC2	Conveyor belt transfer	~21	2021
	TP10	N/A (WS)	CRUSH2	Conveyor belt Feeding Crusher	~21	2021
	TP11	N/A (WS)	CRUSHSCR1	Crushing Feeding Screener	~21	2021
	TP12	N/A (WS)	SCRENBC4	Conveyor from Screener	~21	2021
	TP13	N/A (WS)	SCRENBC5	Conveyor from Screener	~21	2021
	TP14	N/A (WS)	SCRENBC6	Conveyor from Screener	~21	2021
	TP15	N/A (WS)	SCRENBC7	Conveyor from Screener	~21	2021
Storage Structures						
157.1	Stack #38	CF #38	BIN4 SPOUT	Bulk Storage Loading Bin and Loadout Spout (2S)	10	1996
163.1	Stack #7	CF #7	Tank #7 & Tank #8	Storage Tanks #7 and Tank #8 at the New Screen Tower	150	Pre-1948
163.2	Stack #7	CF #7	Tank #15 & Tank #16	Storage Tank #15 and Tank #16 at New Screen Tower	150	Pre-1948
164.1	Stack #7	CF #7	Tanks #13 & #17	Storage tanks #13 and #17 at the New Screen Tower	150	Pre-1970
165	Stack #27	CF #27	Tanks #9 - #12	Storage tanks #9, #10, #11 & #12 at the New Screen Tower	150	Pre-1970
166.1	Stack #7	CF #7	Tanks #14 & #18	Storage tanks #14 and #18 at the New Screen Tower	150	Pre-1970
167	Stack #27	CF #27	Steel Tank #21	Steel Tank at the New Screen Tower	100	Pre-1970
168.1	Stack #13	CF #13	CGS Tank	CGS Tank	800	1998
169	Stack #13	CF #13	PEMCOTank	PEMCO Tank	250	Pre 1983
170	Stack #33	CF #33	Supersil Storage Silos #1 - #4 (1e-4e)	#1 through #4 Silos	125	1984
171	Stack #29	CF #29	MIN-U-SIL storage silo #5 (5e)	#5 Silo	125	1984
172.1	Stack #28	CF #28	MIN-U-SIL storage silos #6 & #7 (6e & E1)	#6 and #7 Silos	100	1984, 1999
172.2	Stack #28	CF #28	MIN-U-SIL storage silo #8 (6e & E1)	#8 Silo	100	1984, 1999
173.1	Stack #9	CF #9	ISTANK18	Concrete Tank at the Float Plant	25	Pre-1970
174	Stack #9	CF #9	Steel Storage Tank	Steel Tank at the Float Plant	25	Pre-1970
175	Stack #27	CF #27	SPOUT1	30 Mesh Loadout Spout (SPOUT1)	150	Pre-1970
176	Stack #27	CF #27	SPOUT2	Dry Sand Loadout Spout (SPOUT2)	150	Pre-1970
177.1	Stack #34	CF #34	SPOUT3	DCL Loadout Spout (SPOUT3)	200	Pre-1970
178	Stack #9	CF #9	SPOUT4	Float Plant Loadout Spout (SPOUT4)	150	Pre-1970
179	Stack #28	CF #28	SPOUT5	10 Micron Loadout Chute (SPOUT5)	150	Pre-1970
180.1	Stack #13	CF #13	SPOUT6	PEMCO/DCL Loadout System (SPOUT6)	250	Pre-1970
181	N/A	N/A (FE)	QROK SPOUTS	Q ROK Bulk Loading Spouts	150	Pre-1970

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
203.1	N/A	N/A	#1 Stone Tank	#1 Stone Tank (Inside Building)	400	Before 1976
204.1	N/A	N/A	#2 Stone Tank	#2 Stone Tank (Inside Building)	400	Before 1976
Miscellaneous						
182	N/A	N/A	Roads	Unpaved Quarry Haul Roads, and Paved and Unpaved Plant Roadways	N/A	Pre-1970
N/A	N/A	N/A	Stockpile	Stockpile	N/A	Pre-1970
	N/A	N/A	Golf Sand Stockpile	Stockpile	N/A	Pre-1970
184	N/A	N/A	Float Sand Stockpile	Stockpile	N/A	Pre-1970
N/A	N/A	N/A	Quarry	Blasting Emissions	N/A	Pre-1970
Liquid Storage Tanks						
185	T1	N/A	Tank No. 1	Diesel Fuel Tank	10000	Before 1976
186	T2	N/A	Tank No. 2	Used Oil Tank at Maintenance garage	275	Before 1976
187	T3	N/A	Tank No. 3	Used Oil Tank at Maintenance garage	275	Before 1976
188	T4	N/A	Tank No. 4	#1 Oil Tank at Maintenance garage	275	Before 1976
189	T5	N/A	Tank No. 5	#2 Oil Tank at Maintenance garage	275	Before 1976
190	T6	N/A	Tank No. 6	#3 Oil Tank at Maintenance garage	275	Before 1976
191	T7	N/A	Tank No. 7	#4 Oil Tank at Maintenance garage	275	Before 1976
192	T8	N/A	Tank No. 8	Recycled Oil Tank near Float Plant	100000	1975
193	T11	N/A	Tank No. 11	Kerosene Tank at C & R Shop	275	1995
194	T12	N/A	Tank No. 12	Gasoline Tank at Office Building	1000	1995
195	T13	N/A	Tank No. 13	Lube Oil Tank at Secondary Crusher	300	Before 1976
196	T16	N/A	Tank No. 16	Recycled Oil	30000	2003
197	T17	N/A	Tank No. 17	Recycled Oil	30000	2003
198	T24	N/A	Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	275	Before 1976
199	T25	N/A	Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	60000	Before 1976
200	T26	N/A	Tank No. 26	Propane Tank at the Quarry	2000	1999
201	T27	N/A	Tank No. 27	Propane Tank at #6 Oil Building	1000	Before 1976
202	T28	N/A	Tank No. 28	Two Propane Tanks at the C&R Shop	1000	Before 1976
N/A	T29	N/A	Tank No. 29	Sodium Hydroxide Tank	8,200	Before 1976
N/A	T30	N/A	Tank No. 30	Sulfuric Acid Tank	6,000	Before 1976
N/A	T31	N/A	Tank No. 31	Floculent Tank	550	Before 1976
N/A	T32	N/A	Tank No. 32	Anti-foam Tank	2,500	Before 1976

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Process Flow Diagram Number	Emission Point ID	Control Device¹	Emission Unit ID	Emission Unit Description	Design Capacity TPY	Year Installed/Modified
N/A	T33	N/A	Tank No. 33	Promoter Tank	12,000	Before 1976

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

Notes:

Redlined rows have the revised information immediately below the redlined row with the corresponding process flow ID number and a decimal representing that this row's information has been revised.

Equipment design capacities are in units of tons per hour. Liquid Storage Tank design capacities are in units of gallons.

Abbreviations:

FE = Full Enclosure, PE = Partial Enclosure, BE = Building Enclosure, T = Tunnel or Underground, IMC = Inherent Moisture Content(1-5%), MC = Moisture Content, SS = Saturated Sand(60% moisture), WS = Water Spray, WT = Water Truck, MD = Minimized Drop Height, EL = Enclosed Loading Station, WSc = Wet Scrubber, CF = Cartridge Filter.

Attachment E

Emission Unit Forms

<i>Emission Unit Description</i>			
Emission unit ID number: VIBFD1, CRUSH2, CONV3, CONV2, CONV1, Reclaim Stockpile	Emission unit name: Primary Crushing Plant	List any control devices associated with this emission unit: CF #1	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Primary Crushing Plant (Stack #1) and associated fugitive emissions			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: Pre-1970	Installation date: Pre-1970	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1000 TPH			
Maximum Hourly Throughput: 1000	Maximum Annual Throughput: 8,760,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--

Particulate Matter (PM _{2.5})	--	0.727
Particulate Matter (PM ₁₀)	--	4.800
Total Particulate Matter (TSP)	--	12.874
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
ted Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Notes:

Allowable PM Stack Emissions (Type 'a' Source Operation)
 [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]
 Total emissions are for all units associated with Primary Crushing process.

Applicable Requirements

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

Applicable Requirements

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

Testing Requirements

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

<i>Emission Unit Description</i>			
Emission unit ID number: VIBFD2, CONV4, CONV5, CRUSH3, CONV7, CONV6, CONV8	Emission unit name: Secondary Crushing Plant	List any control devices associated with this emission unit: WSc #2	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Secondary Crushing Plant (Stack #2) and associated fugitive emissions			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: Pre-1970	Installation date: Pre-1970	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 400			
Maximum Hourly Throughput: 400	Maximum Annual Throughput: 3,504,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--

Particulate Matter (PM _{2.5})	--	0.332
Particulate Matter (PM ₁₀)	--	2.190
Total Particulate Matter (TSP)	--	5.445
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
ted Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Notes:

Allowable PM Stack Emissions (Type 'a' Source Operation)
 [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]
 Total emissions are for all units associated with Secondary Crushing process.

Applicable Requirements

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

Applicable Requirements

The following scrubber pressure drop range obtained from stack test and historical data is an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: Wsc#2, Wet Scrubber: 1.5-7.0 (in H2O)

According to the CAM plan submitted, the pressure drop across the wet scrubber shall be measured continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Wsc#2]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

6.2.2. The wet scrubber Wsc#2 shall be observed daily during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions are observed, visible emissions evaluations in accordance with 45CSR§7A shall be conducted as soon as practicable, but no later than one week from the time of the observation. A visible emissions evaluations in accordance with 45CSR7A shall not be required under condition Section 6.2.2 if the visible emissions condition is corrected in a timely manner; the scrubber is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§30-5.1c] [Wsc#2]

Testing Requirements

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: CONV12, CONV13, CONV14, MILL1, CONV15, SCREN1, TANK2, WETSE1 - WETSE5, FERRO1, CLASS4&7, FCell, CONV54, MILL8, PIPE1, CONV18, CONV17, CONV19, CONV20 & CONV22, CONV21, CONV23, CONV24, V1BFD4, DRYER #1 (3s), CONV25, SCREN16	Emission unit name: Wet Processing Plant (Rod Mill Building)	List any control devices associated with this emission unit: WSc #3, CF#25	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Dryers - Fluid Bed Dryer (3S), Stack #3, Wet Processing Plant and associated fugitive emissions.			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: 1975	Installation date: 1975	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 200			
Maximum Hourly Throughput: 200	Maximum Annual Throughput: 1,752,000 TPY	Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? Yes		If yes, is it? propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil	
Maximum design heat input and/or maximum horsepower rating: 71 MMBtu/hr (HHV)		Type and Btu/hr rating of burners: 71,000,000 Btu/hr (HHV)	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas & Propane	negligible	negligible	1020 BTU/scf
Recycled Fuel Oil	1.5 %	negligible	150,000 BTU/gal
Distillate Oils	1.5 %	negligible	150,000 BTU/gal
Residual Oils	0.2 %	0.05-0.1	140,000 BTU/gal

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	13.750
Nitrogen Oxides (NO _x)	--	96.350
Lead (Pb)	--	0.210
Particulate Matter (PM _{2.5})	--	76.559
Particulate Matter (PM ₁₀)	--	96.688
Total Particulate Matter (TSP)	--	98.781
Sulfur Dioxide (SO ₂)	--	267.000
Volatile Organic Compounds (VOC)	--	1.270
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All	--	2.185
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).		
Notes:		
Total emissions are for all units associated with Wet Processing Plant.		
Max emissions of each fuel type for Dryer #1 for every specific pollutant to conservatively estimate PTE.		
<i>Applicable Requirements</i>		

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

Applicable Requirements

The Fluid Bed dryer (3S) and the Rotary dryer (8S) shall burn the following fuels: propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil. [45CSR13, R13-0715, A.2] [3S, 8S]

The following sulfur limits shall not be exceeded: #2 Fuel Oil shall have a maximum of 0.2% S by weight. #4, # 5 and #6 Fuel Oil and Recycled oil shall have a maximum of 1.5 % sulfur by weight. [45CSR13, R13-0715, A.3] [3S, 8S]

Combined emissions from the Fluid Bed Dryer (3S) and Rotary Dryer (8S) shall not exceed the following annual limitations in Tons per year (TPY):

Particulate Matter: 95.48

SO₂: 267.0

NO_x: 96.35

VOC: 1.27

CO: 13.75

[45CSR13, R13-0715, A.6] [3S, 8S]

The fuel rating of the recycled oil shall not exceed 150,000 BTU/gallon. [45CSR13, R13-0715, A.7] [3S, 8S]

The following conditions shall be followed by the permittee for the use of Recycled Oil as dryer fuel:

a. The registrant shall not receive, store, burn or fire any recycled oil which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1 & Recycled Oil specification provided by U.S.Silica). The burning of recycled oil that does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Permit.

Maximum Allowable Specification

Arsenic: <5.0 ppm

Cadmium: <2.0 ppm

Chromium:<10.0 ppm

Lead: <100.0 ppm

PCBs: <2.0 ppm

Total Halogen: <1000.0 ppm

Flash Point: >100.0 Degrees F

b. The registrant shall receive a chemical analysis with each shipment or delivery of recycled oil from the supplier or marketer. The analysis shall identify the name and address of the supplier or marketer, the supplier or marketer's USEPA Identification Number and the following used or recycled oil information:

Date of shipment or delivery

Quantity received

Arsenic content

Cadmium content

Chromium content

Lead content

PCB content

Total Halogen content

Flash point

Sulfur content

c. The Director or his or her duly authorized representative may conduct or require the permittee to conduct detailed chemical analyses of any used or recycled oil received, stored or fired in the dryer burner. [45CSR13, R13-0715,

A.9] [3S, 8S]

The permitted facility shall comply with all provisions of 45CSR10, provided that the permittee shall comply with any more stringent requirements as may be set forth under Sections 4.1.1 to 4.1.7, 4.2.1, 4.4.1 to 4.4.4 of the permit. The principal provisions of 45CSR10 are as follows:

§45-10-3.3 - Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(3.3.f) - For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

§45-10-3.4.a. - Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate based on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

§45-10-4.1. - No person shall cause, suffer, allow, or permit, the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.

§45-10-8.2.a. - At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this rule. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this rule. [45CSR13, R13-0715, B.4] [3S, 8S]

At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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§10-8.1a] [3S, 8S]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 45CSR§10-3. [45CSR§10-8.1b] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 45CSR§§10-3, 4 and 5 of this rule by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. [45CSR§10-8.2c] [3S, 8S]

Monitoring plans pursuant to subsection 45CSR§10-8.2.c shall be submitted to the Director within six (6) months of the effective date of this rule. Approval or denial of such plans shall be within twelve (12) months of the effective date of this rule. (Monitoring Plan approved on April 25, 2003. Compliance with terms and conditions of 45CSR13, R13-0715F assures compliance with 45CSR10 and 10A) [45CSR§10-8.2.c.2] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 45CSR§§10-3, 4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 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.

[45CSR§10-8.3.a.] [3S, 8S]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken. [45CSR§10-8.3.b.] [3S, 8S]

The following scrubber pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: 3S: 2.0 to 5.8 (in H₂O) 8S: 0.5 to 2.0 (in H₂O)

According to the CAM plan submitted, the pressure gauges on the scrubbers shall be operated continuously during operation of the dryers.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [3S, 8S]

5.1.6.2. In accordance with the requirements of 40CFR60, Subpart OOO, the maximum particulate (PM) emissions from air pollution control device CF#25 shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter). [45CSR13, R13-2015, A.2] [Stack # 25]

5.1.6.3. The maximum hourly and annual rate of sand to the Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1(SCREEN 16), shall not exceed 220.0 tons/hour and 1,927,200 tons/year. [45CSR13, R13-2015, A.3] [SCREEN16]

5.1.6.4. The Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1, shall be controlled at all times of operation with a cartridge filter, Control Equipment ID No. CF#25. [45CSR13, R13-2015, A.4] [CF#25]

5.1.6.5. The permittee shall operate the cartridge filter, Control Equipment ID No.CF#25, as outlined in Permit Application R13-2015. [45CSR13, R13-2015, A.5] [CF#25]

Permit Shield

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

Monitoring Requirements

Compliance with Section 3 of 45CSR7 shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the scrubber. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

Records shall be maintained on site reporting the results of each test. Said opacity evaluations of sources identified during the Method 22 survey shall only be conducted by an employee or contractor certified in 40CFR60 Appendix A, Method 9, Visible Emission observations. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule. [45CSR13, R13-0715, A.12] [3S, 8S]

The Fluid Bed Dryer and the Rotary dryer shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40C.F.R.Part 60 Appendix A, Method 22. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, visible emissions evaluations in accordance with 40C.F.R. 60

Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. However, a Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR13, R13-0715, A.13] [3S, 8S]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1.[45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 &42]

Testing Requirements

Tests that are required by the Director to determine compliance with the emission limitations set forth in 4.1.4 and 4.1.5 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 100% of the peak load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A. [45CSR13, R13-0715, B.7] [3S, 8S]

With regard to any testing required by the Director, the permittee shall submit to the Director of the division of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. [45CSR13, R13-0715, B.8] [3S, 8S]

Within 180 days of the permit approval, and once per permit term, the permittee shall conduct or have conducted test(s) on the fluid bed and rotary dryers to determine compliance with the Particulate Matter emission limitations as set forth in Sections 4.1.4 & 4.1.5 above. Such Test(s) shall be conducted in accordance with Sections 4.3.1 and 4.3.2 contained herein. The Director, or a duly authorized representative, may witness or conduct such tests. Should the Director exercise this option to conduct such test(s), the operator shall 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§30-5.1c] [3S, 8S]

Note: Rotary Dryer tested – 12-18-2012 (not operational since 2014), Fluid Bed Dryer tested – 08-02-2017.

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (MM01 & MM02) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

Records of quantity and type of fuel used, and the fuel sulfur content analysis shall be retained on-site by the permittee for at least five (5) years. [45CSR13, R13-0715, A.4] [3S, 8S]

Compliance with annual limitations of SO₂, NO_x, VOC and CO in Section 4.1.5 shall be demonstrated by recordkeeping of monthly fuel use reports and fuel usage limitations conforming to the following equations. Records will be maintained on-site for at least five years and shall be submitted to the Director upon request.

SO₂: $142 F_2 S_2 + 150 F_4 S_4 + 157 F_5 S_5 + 157 F_6 S_6 + 147 FR SR = 534,000$ lbs/yr of SO₂ NO_x

: $20 F_2 + 20 F_4 + 55 F_5 + 55 F_6 + 19 FR + 100N + 19 P = 192,700$ lbs/yr of NO_x

CO: $5 F_2 + 5 F_4 + 5 F_5 + 5 F_6 + 5 FR + 84 N + 3.2 P = 27,507$ lbs/yr of CO

VOC: $0.2 F_2 + 0.2 F_4 + 0.28 F_5 + 0.28 F_6 + 0.22 FR + 5.5 N + 0.3 P = 2,541$ lbs/yr of VOC

Where:

F₂ = #2 Fuel Oil use, in 1000 gallons, for last twelve month period

F₄ = #4 Fuel Oil use, in 1000 gallons, for last twelve month period

F₅ = #5 Fuel Oil use, in 1000 gallons, for last twelve month period

F₆ = #6 Fuel Oil use, in 1000 gallons, for last twelve month period

FR = Recycled Fuel Oil use, in 1000 gallons, for last twelve month period

P = Propane use, in 1000 gallons, for last twelve month period

N = Natural gas use, in million cubic feet of gas, for last twelve month period

S₂ = Weighted average sulfur content of all #2 Fuel Oil used in last twelve month period (by weight) S₄

= Weighted average sulfur content of all #4 Fuel Oil used in last twelve month period (by weight) S5 =
Weighted average sulfur content of all #5 Fuel Oil used in last twelve month period (by weight) S6 =
Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight) SR =
Weighted average sulfur content of all Recycled Oil used in last twelve month period (by weight)
[45CSR13, R13-0715, A.8] [3S, 8S]

Records of each shipment of recycled oil chemical analyses, quantity and type of fuel used, maximum fuel rating (BTU/gallon), and the fuel sulfur analysis shall be retained on-site by the permittee for at least five (5) years. The owner or operator shall keep record of quality control and quality assurance program for the fuel analysis. If a certified lab is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. The permittee will confirm the certified lab fuel analysis results by using an independent certified lab at least once in every six months to analyze the fuel. [45CSR13, R13-0715, A.10] [3S, 8S]

The permittee shall monitor and record the pressure drop across each scrubber (during operation) on a daily basis. These records shall be kept on site for a minimum of 5 years and made available to the Director or Authorized Representative upon request. [45CSR13, R13-0715, A.11] [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

Qualified personnel shall perform visual inspections of the scrubbers at least monthly and perform routine maintenance to assure proper operation of the scrubbers. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

General recordkeeping requirements.

(1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements.
[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [3S, 8S]

5.4.7. For the purpose of determining compliance with the emission limits as set forth in Sections 5.1.6.1 and 5.1.6.2, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2015, B.1] [Stack # 25]

5.4.8. For the purpose of determining compliance with the process weight rate limitations set forth in Section 5.1.6.3 the permittee shall maintain monthly and annual records on the processing rate of sand to the Trash Vibrating Screen. Compliance with the monthly and annual process weight rate limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the process weight rate at any given time for the previous twelve (12) consecutive months. Said records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S.Silica Company computerized Production Tracking Data System (PTDS)
[45CSR13, R13-2015, B.2] [SCREN16]

5.4.9. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.4, the permittee shall maintain certified annual records that contain at a minimum the following:
Hours of Operation when the Trash Vibrating Screen is operating without the required control device (Cartridge Filter). Said records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2015, B.3] [CF#25]

5.4.10. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.5, the permittee shall meet the following requirements for the control device CF#25:
a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.
b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

1. The cause of malfunction
2. Steps taken to:
 - correct the malfunction
 - minimize emissions during malfunction
3. The duration of the malfunction in hours.
4. The estimated increase in emissions during the malfunction.
5. Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2015, B.4] [CF#25]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2.
[45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

General reporting requirements.

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [3S, 8S]

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R.

§70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

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

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

Emission Unit Description			
Emission unit ID number: Slurry Pumps, CYCLO4 & CYCLO5, FERRO2, CYCLO3, Drain Shed, CONV46, CONV47, CLASS5, Conditioner, Floatation, Vacuum Table, CONV48, CONV50, CONV49, DRYER #2 (8S), SCREW21, ELEV19, SCREN18 (1E), SCREW22, ELEV20, PACKR8 (1E)		Emission unit name: Wet Float Plant	
		List any control devices associated with this emission unit: WSc #8, CF #9	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Rotary Dryer (8S), Stack #8, Wet Float Plant, and associated fugitive emissions.			
Manufacturer: In House		Model number: NA	
		Serial number:	
Construction date: Pre-1970		Installation date: Pre-1970	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 25 TPH			
Maximum Hourly Throughput: 25		Maximum Annual Throughput: 219,000	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? Yes		If yes, is it? propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil	
Maximum design heat input and/or maximum horsepower rating: 17.1 MMBtu/hr		Type and Btu/hr rating of burners: 17,000,000 Btu/hr	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Fuel Type	Max. Sulfur Content
Propane	negligible	Propane	negligible

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	13.750
Nitrogen Oxides (NO _x)	--	96.350
Lead (Pb)	--	0.000
Particulate Matter (PM _{2.5})	--	78.804
Particulate Matter (PM ₁₀)	--	98.610
Total Particulate Matter (TSP)	--	98.840
Sulfur Dioxide (SO ₂)		267.000
Volatile Organic Compounds (VOC)		1.270
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All	--	0.138
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes: Total emissions are for all units associated with Wet Float Plant. Annual emission rate based on 8,760 hours of operation per year.</p>		
<i>Applicable Requirements</i>		

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

Applicable Requirements

The Fluid Bed dryer (3S) and the Rotary dryer (8S) shall burn the following fuels: propane, #2 Fuel Oil, #4 Fuel Oil, #5 Fuel Oil, #6 Fuel Oil, natural gas and Recycled Fuel Oil. [45CSR13, R13-0715, A.2] [3S, 8S]

The following sulfur limits shall not be exceeded: #2 Fuel Oil shall have a maximum of 0.2% S by weight. #4, #5 and #6 Fuel Oil and Recycled oil shall have a maximum of 1.5 % sulfur by weight. [45CSR13, R13-0715, A.3] [3S, 8S]

Combined emissions from the Fluid Bed Dryer (3S) and Rotary Dryer (8S) shall not exceed the following annual limitations in Tons per year (TPY):

Particulate Matter: 95.48

SO₂: 267.0

NO_x: 96.35

VOC: 1.27

CO: 13.75

[45CSR13, R13-0715, A.6] [3S, 8S]

The fuel rating of the recycled oil shall not exceed 150,000 BTU/gallon. [45CSR13, R13-0715, A.7] [3S, 8S]

The following conditions shall be followed by the permittee for the use of Recycled Oil as dryer fuel:

c. The registrant shall not receive, store, burn or fire any recycled oil which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1 & Recycled Oil specification provided by U.S.Silica). The burning of recycled oil that does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Permit.

Maximum Allowable Specification Arsenic: <5.0 ppm

Cadmium: <2.0 ppm Chromium:<10.0 ppm Lead: <100.0 ppm

PCBs: <2.0 ppm

Total Halogen: <1000.0 ppm Flash Point: >100.0 Degrees F

d. The registrant shall receive a chemical analysis with each shipment or delivery of recycled oil from the supplier or marketer. The analysis shall identify the name and address of the supplier or marketer, the supplier or marketer's USEPA Identification Number and the following used or recycled oil information:

xi. Date of shipment or delivery

xii. Quantity received

xiii. Arsenic content

xiv. Cadmium content

xv. Chromium content

xvi. Lead content

xvii. PCB content

xviii. Total Halogen content

xix. Flash point

xx. Sulfur content

c. The Director or his or her duly authorized representative may conduct or require the permittee to conduct detailed chemical analyses of any used or recycled oil received, stored or fired in the dryer burner. [45CSR13, R13-0715, A.9] [3S, 8S]

The permitted facility shall comply with all provisions of 45CSR10, provided that the permittee shall comply with any more stringent requirements as may be set forth under Sections 4.1.1 to 4.1.7, 4.2.1, 4.4.1 to 4.4.4 of the permit. The principal provisions of 45CSR10 are as follows:

§45-10-3.3 - Maximum Allowable Emission Rates for Similar Units in All Priority III Regions Except Region IV. No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

(3.3.f) - For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

§45-10-3.4.a. - Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate based on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.

§45-10-4.1. - No person shall cause, suffer, allow, or permit, the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.

§45-10-8.2.a. - At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of this rule. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of this rule. [45CSR13, R13-0715, B.4] [3S, 8S]

At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of sections 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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§10-8.1a] [3S, 8S]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 45CSR§10-3. [45CSR§10-8.1b] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 45CSR§§10-3, 4 and 5 of this rule by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. [45CSR§10-8.2c] [3S, 8S]

Monitoring plans pursuant to subsection 45CSR§10-8.2.c shall be submitted to the Director within six (6) months of the effective date of this rule. Approval or denial of such plans shall be within twelve (12) months of the effective date of this rule. (Monitoring Plan approved on April 25, 2003. Compliance with terms and conditions of 45CSR13, R13-0715F assures compliance with 45CSR10 and 10A) [45CSR§10-8.2.c.2] [3S, 8S]

The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to sections 45CSR§§10-3, 4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to subdivision 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. [45CSR§10-8.3.a.] [3S, 8S]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken. [45CSR§10-8.3.b.] [3S, 8S]

The following scrubber pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the scrubber to attain the required minimum particulate removal efficiency. Scrubber pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ± 0.1 inch water gauge. An excursion shall be defined as when the scrubber pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the scrubber and corrective actions shall be taken to return the pressure drop within the following range: 3S: 2.0 to 5.8 (in H₂O) 8S: 0.5 to 2.0 (in H₂O)

According to the CAM plan submitted, the pressure gauges on the scrubbers shall be operated continuously during operation of the dryers.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [3S, 8S]

5.1.9.1. The maximum hourly and annual processing rates of sand through the bulk sand bagger shall not exceed 30 TPH and 262,800 TPY, based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.1] [PACKR8]

5.1.9.2. The permittee shall operate the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C; Emission Point ID No. 1E - Stack #9), as outlined in Permit Application R13-2299.

[45CSR13, R13-2299, A.2] [Stack # 9]

5.1.9.3. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. 1E - Stack #9), shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams/dry standard meter).

[45CSR13, R13-2299, A.3; 40 C.F.R. § 60.672; 45CSR16] [Stack # 9]

Permit Shield

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

Monitoring Requirements

Compliance with Section 3 of 45CSR7 shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the scrubber. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

Records shall be maintained on site reporting the results of each test. Said opacity evaluations of sources identified during the Method 22 survey shall only be conducted by an employee or contractor certified in 40CFR60 Appendix A, Method 9, Visible Emission observations. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule. [45CSR13, R13-0715, A.12] [3S, 8S]

The Fluid Bed Dryer and the Rotary dryer shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40C.F.R.Part 60 Appendix A, Method 22. If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, visible emissions evaluations in accordance with 40C.F.R. 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. However, a Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR13, R13-0715, A.13] [3S, 8S]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Testing Requirements

Tests that are required by the Director to determine compliance with the emission limitations set forth in 4.1.4 and 4.1.5 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 100% of the peak load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A. [45CSR13, R13-0715, B.7] [3S, 8S]

With regard to any testing required by the Director, the permittee shall submit to the Director of the division of Air Quality a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place. [45CSR13, R13-0715, B.8] [3S, 8S]

Within 180 days of the permit approval, and once per permit term, the permittee shall conduct or have conducted test(s) on the fluid bed and rotary dryers to determine compliance with the Particulate Matter emission limitations as set forth in Sections 4.1.4 & 4.1.5 above. Such Test(s) shall be conducted in accordance with Sections 4.3.1 and 4.3.2 contained herein. The Director, or a duly authorized representative, may witness or conduct such tests. Should the Director exercise this option to conduct such test(s), the operator shall 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§30-5.1.c] [3S, 8S]

Note: Rotary Dryer tested – 12-18-2012 (not operational since 2014), Fluid Bed Dryer tested – 08-02-2017.

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (SM01) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

Records of quantity and type of fuel used, and the fuel sulfur content analysis shall be retained on-site by the permittee for at least five (5) years. [45CSR13, R13-0715, A.4] [3S, 8S]

Compliance with annual limitations of SO₂, NO_x, VOC and CO in Section 4.1.5 shall be demonstrated by recordkeeping of monthly fuel use reports and fuel usage limitations conforming to the following equations. Records will be maintained on-site for at least five years and shall be submitted to the Director upon request.

SO₂: $142 F_2 S_2 + 150 F_4 S_4 + 157 F_5 S_5 + 157 F_6 S_6 + 147 FR SR = 534,000 \text{ lbs/yr of SO}_2$

NO_x: $20 F_2 + 20 F_4 + 55 F_5 + 55 F_6 + 19 FR + 100N + 19 P = 192,700 \text{ lbs/yr of NO}_x$

CO: $5 F_2 + 5 F_4 + 5 F_5 + 5 F_6 + 5 FR + 84 N + 3.2 P = 27,507 \text{ lbs/yr of CO}$

VOC: $0.2 F_2 + 0.2 F_4 + 0.28 F_5 + 0.28 F_6 + 0.22 FR + 5.5 N + 0.3 P = 2,541 \text{ lbs/yr of VOC}$

Where:

F₂ = #2 Fuel Oil use, in 1000 gallons, for last twelve month period

F₄ = #4 Fuel Oil use, in 1000 gallons, for last twelve month period

F₅ = #5 Fuel Oil use, in 1000 gallons, for last twelve month period

F₆ = #6 Fuel Oil use, in 1000 gallons, for last twelve month period

FR = Recycled Fuel Oil use, in 1000 gallons, for last twelve month period

P = Propane use, in 1000 gallons, for last twelve month period

N = Natural gas use, in million cubic feet of gas, for last twelve month period

S₂ = Weighted average sulfur content of all #2 Fuel Oil used in last twelve month period (by weight)

S₄ = Weighted average sulfur content of all #4 Fuel Oil used in last twelve month period (by weight)

S₅ = Weighted average sulfur content of all #5 Fuel Oil used in last twelve month period (by weight)

S₆ = Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight)

Weighted average sulfur content of all #6 Fuel Oil used in last twelve month period (by weight) SR =
Weighted average sulfur content of all Recycled Oil used in last twelve month period (by weight)
[45CSR13, R13-0715, A.8] [3S, 8S]

Records of each shipment of recycled oil chemical analyses, quantity and type of fuel used, maximum fuel rating (BTU/gallon), and the fuel sulfur analysis shall be retained on-site by the permittee for at least five (5) years. The owner or operator shall keep record of quality control and quality assurance program for the fuel analysis. If a certified lab is used to provide the fuel analysis, the quality control and assurance program is deemed to be satisfactory. The permittee will confirm the certified lab fuel analysis results by using an independent certified lab at least once in every six months to analyze the fuel. [45CSR13, R13-0715, A.10] [3S, 8S]

The permittee shall monitor and record the pressure drop across each scrubber (during operation) on a daily basis. These records shall be kept on site for a minimum of 5 years and made available to the Director or Authorized Representative upon request. [45CSR13, R13-0715, A.11] [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

Qualified personnel shall perform visual inspections of the scrubbers at least monthly and perform routine maintenance to assure proper operation of the scrubbers. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [3S, 8S]

General recordkeeping requirements.

(1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [3S, 8S]

For the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C-CF#9):

a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request.

b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of 5 years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

- The cause of malfunction.
- Steps taken to:
 - correct the malfunction.
 - minimize emissions during malfunction.
- The duration of the malfunction in hours.
- The estimated increase in emissions during the malfunction.
- Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2423, B.5] [CF#9]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

General reporting requirements.

(3) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [3S, 8S]

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8.

Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

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

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

Emission Unit Description			
Emission unit ID number: MOB-CONV, BE-03, C Silo, SCREN17 (1E), BE01 (E2), BE02 (E2), LS01 (FE3), CONV26, CONV27, ELEV4, VIBFD5, CONV39-41, SCREN7-9 & SCREN14-15 (1E), CONV 30, CONV29, ELEV2, ELEV1, ELEV3, SCREN10-13 & SCREN2-4, CONV31, CONV32, CONV36, CONV37, CONV33, CONV34, CONV51, PACKR1		Emission unit name: Screening and Unground Sand Processing	
		List any control devices associated with this emission unit: CF #6, CF #7, CF #25, CF #27, CF#36, CF#40	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Screening and Unground Sand Processing and associated fugitive emissions.			
Manufacturer: N/A		Model number: N/A	
		Serial number: NA	
Construction date: Pre-1975		Installation date: Pre-1975	
		Modification date(s): 2012	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 200 TPH			
Maximum Hourly Throughput: 200		Maximum Annual Throughput: 1,752,000 TPY	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	13.436
Particulate Matter (PM ₁₀)	--	18.472
Total Particulate Matter (TSP)	--	22.048
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes: PM emissions from Stack #6 shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Compliance with the concentration limit in R30-06500001-2014 (MM01 & MM02) in 5.1.7.1.c. ensures compliance with 45CSR§7-4.1. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2 PM emissions from Stack #25 are based on PM not greater than 0.022 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Compliance with the concentration limit in R30-06500001-2014 (MM01 & MM02) 5.1.6.2.c. ensures compliance with 45CSR§7-4.1. PM emissions from Stack #36 are based on PM not greater than 0.14 grains per dry standard cubic foot of exhaust. [40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] Total emissions are for all units associated with Screening and Unground Sand Processing.</p>		
<i>Applicable Requirements</i>		

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

Applicable Requirements

Visible emissions from Stack #6 shall not be greater than 7% opacity on a six minute average.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.1.b. ensures compliance with 45CSR§7-3.1.*

c. PM emissions from Stack #6 shall not exhibit PM greater than 0.014 grains per dry standard cubic foot of exhaust.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16; 45CSR§7-4.1.] *Compliance with the concentration limit in 5.1.7.1.c. ensures compliance with 45CSR§7-4.1.*

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

5.1.6.2. In accordance with the requirements of 40CFR60, Subpart OOO, the maximum particulate (PM) emissions from air pollution control device CF#25 shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams per dry standard meter). [45CSR13, R13-2015, A.2] [Stack # 25]

5.1.6.3. The maximum hourly and annual rate of sand to the Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1(SCREEN 16), shall not exceed 220.0 tons/hour and 1,927,200 tons/year. [45CSR13, R13-2015, A.3] [SCREEN16]

5.1.6.4. The Trash Vibrating Conveyor (SCREEN), Equipment ID No. TS1, shall be controlled at all times of operation with a cartridge filter, Control Equipment ID No. CF#25. [45CSR13, R13-2015, A.4] [CF#25]

5.1.6.5. The permittee shall operate the cartridge filter, Control Equipment ID No.CF#25, as outlined in Permit Application R13-2015. [45CSR13, R13-2015, A.5] [CF#25]

5.1.7.2 The following conditions and requirements are specific to the five Rotex Screens:

a. The combined annual processing rate of the five Rotex Screens shall not exceed 3,285,000 tons of sand per year.

b. Fugitive visible emissions from Building #7 (location of the five Rotex Screens) shall not be greater than 10% opacity on a six minute average.

[45CSR16; 40 C.F.R. §60.672(b) & Table 3 of Subpart OOO; 45CSR§7-3.1.] *Compliance with the opacity limit in 5.1.7.2.b. ensures compliance with 45CSR§7-3.1.*

c. PM emissions from Stack #36 shall not exhibit PM greater than 0.022 grains per dry standard cubic foot of exhaust.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16]

d. Visible emissions from Stack #36 shall not be greater than 7% opacity on a six minute average.

[40 C.F.R. §60.672(a) & Table 2 of Subpart OOO; 45CSR16] *Compliance with the opacity limit in 5.1.7.2.d. ensures compliance with 45CSR§7-3.1.*

[45CSR13, R13-2145, 4.1.2.] (Rotex Screens – 1S-5S)

5.1.7.3 Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-2145C (*i.e.*, CF #36 and CF #6) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13, R13-2145, 4.1.3.; 45CSR§13-5.11.]

7.1.1. The following conditions and requirements are specific to the Mobile Conveyor (MOB-CONV), Bucket Elevator (BE-03), and the Cristobalite Silo (C Silo):

The permittee shall meet the following fugitive emissions limit for Bucket Elevator (BE-03) and the transfer points on Mobile Conveyor (MOB-CONV), Cristobalite Silo (C Silo), enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671): 7 percent opacity

[45CSR16, 40CFR §60.672(b) and Table 3 to Subpart OOO of 40CFR60; 45CSR13, R13-2145, 5.1.1.]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1.[45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF #6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 &42]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1.

[45CSR§30-5.1c]

5.2.5. Once a quarter (every three months), the permittee shall conduct 30 minute visible emission inspections using U.S. EPA Method 22 (Appendix A-7 of Part 60) of Stack #6. The Method 22 observations shall be conducted while the dust collector 1C (dust collector for Stack #6) is operating. Such monitoring is deemed satisfactory if no visible emissions are detected during the Method 22 observations. If any visible emissions are detected, then the permittee must initiate corrective actions within twenty-four hours of the observation to bring the dust collector to normal operation. The date and time of every Method 22 observation inspection shall be recorded in accordance with Condition 3.4.2. and in the logbook in accordance with 40 C.F.R. §60.676(b). These records shall include any corrective actions taken. The permittee may elect to establish a different satisfactory (success) level for the visible emissions observations inspections by conducting PM performance test according to 40 C.F.R. §60.675(b) simultaneously with a Method 22 observation to determine what constitutes normal visible emission from Stack #6 when it is in compliance with the PM limit of Condition 5.1.7.1.c. These revised visible emissions satisfactory (success) level must be incorporated into the Facility’s Title V Operating Permit.

[45CSR13, R13-2145, 4.2.1.; 40 C.F.R. §60.674(c); 45CSR16]

7.2.1. The permittee shall maintain monthly and annual records on the processing rate of sand to the mobile conveyor and bucket elevator. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2 of this permit.

[45CSR13, R13-2145, 5.2.1.]

7.2.2. The permittee shall maintain records on the specific location of the Mobile Conveyor (MOB-CONV). Upon initial startup, these records shall include the date moved and a plot plan marking the location for each move. Such records shall be maintained in accordance with Condition 3.4.2 of this permit.

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

5.3.2. For demonstrating initial compliance with the visible emission standards of 5.1.7.1.b. and 5.1.7.1.d., the permittee shall conduct performance testing to determine the visible emissions from the point and fugitive emission sources associated with Q-Rok loading at the facility, which includes Stack #6, Bucket Elevators (BE01 & BE02) and the associated load out spout. Such testing shall be conducted in accordance with Method 9 of Appendix A-4 of 40CFR 60, and the procedures in 40 C.F.R. §60.11. and Condition 3.3.1 of this permit and the following additions:

- a. The minimum distance between the observer and the emission source shall be 15 feet. The observer shall, when possible, select a position that minimizes interference from other fugitive sources (e.g. road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR 60, Section 2.1.) must be followed.
- b. The duration of the Method 9 observations for demonstrating compliance with the fugitive emission limit must be 30 minutes (five 6-minute averages). Compliance with the limit in 5.1.7.1.d. shall be based on the average of five 6-minute averages.
- c. If a building/structure encloses the Bucket Elevators BE01 and BE02 and/or load out spout with the DSH system, the permittee shall conduct initial Method 9 observation of the building/structure to determine the compliance with fugitive emission limit of Condition 5.1.7.1.d. according to 40 C.F.R. 60 Subpart OOO and 40 C.F.R. §60.11. Such source must be operating while conducting the observations.

[40 C.F.R. §§60.675(c) and (d); 45CSR16; 45CSR13, R13-2145, 4.3.1.]

The permittee may use the following as alternatives to the reference methods and procedures listed in the above:

- a. If visible emissions from two or more facilities (affected sources) continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 - i. Use for the combined emission stream the highest fugitive opacity standard application to any of the individual affected contributing to the emission stream.
 - ii. Separate the emissions so that the opacity of emissions from each affected can be read.
- b. A single visible emission observer may conduct visible emissions observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:
 - i. No more than three emission points may be read concurrently.
 - ii. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
 - iii. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

c. The permittee may reduce the 30-day advance notification of performance test in 40 C.F.R. §§60.7(a)(6), 60.8(d) and 15-day notification of Condition 3.3.1.c. to a 7-day advance notification.

[40 C.F.R. §§60.675(e) and (g); 45CSR16; 45CSR13, R13-2145, 4.3.1.]

5.3.3. For demonstrating initial compliance with the PM emission limit of 5.1.7.1.c., the permittee shall conduct performance testing to determine the PM concentration rate from Stack #6. Such testing shall be conducted using Method 5 (Appendix A-3 of Part 60), Method 17 ((Appendix A-6) of Part 60), or Method 5I (Appendix A-3 of Part 60). If the exhaust velocity of Stack #6 is too low to measure accurately using the type S pilot tube as specified in EPA Method 2 (Appendix A-1 of Part 60), then the permittee may use the procedure outline in 40 C.F.R. §60.675(e)(4).

[45CSR13, R13-2145, 4.3.2.]

5.3.4. The initial performance testing as required in this section (condition 5.3.2. through 5.3.4.) shall be conducted within 60 days after achieving the maximum production rate of 150 tons per hour through the load out with the DSH system, but no later than 180 days after initial start-up of the load out with the DSH system.

[40 C.F.R. §§60.672(a) and (b); 45CSR16; 45CSR13, R13-2145, 4.3.3.]

5.3.5. The permittee shall repeat the performance testing as prescribed in Condition 5.3.2. for compliance with the fugitive emission standard of Condition 5.1.7.1.d. within 5 years from the previous performance test demonstrating compliance.

[40 C.F.R. §60.672(b) and Table 3 of 40 C.F.R. 60 Subpart OOO; 45CSR16; 45CSR13, R13-2145, 4.3.4.]

7.3.1. For demonstrating initial compliance with the visible emission limit of 7.1.1, the permittee shall demonstrate compliance by conducting:

a. An initial performance test according to 40 CFR §60.11 and 40 CFR §60.675; and

b. A repeat performance test according to 40 CFR §60.11 and 40 CFR §60.675 within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays.

[45CSR16, Table 3 to Subpart OOO of 40 CFR 60; 45CSR13, R13-2145, 5.3.1.]

7.3.2. Method 9 of Appendix A-4 of 40 CFR 60 and the procedures in 40 CFR §60.11 will be used to determine opacity, with the following additions:

a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet);

b. The observer shall, when possible, select a position that minimizes interference from other fugitive emissions sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR 60, Section 2.1) must be followed.

[45CSR16, 40 CFR §§60.675(b)(2) and (c)(1); 45CSR13, R13-2145, 5.3.2.]

7.3.3. When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR §§60.672(b) or 60.672(e)(1), the duration of the Method 9 (40 CFR 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in 7.1.1. must be based on the average of the five 6-minute averages.

[45CSR16, 40 CFR §60.675(c)(3); 45CSR13, R13-2145, 5.3.3.]

The owner or operator shall determine compliance with the particulate matter standards in R30-06500001-2014 (MM01 & MM02) Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675. [40 C.F.R. §60.675; 45CSR16]

Recordkeeping Requirements

5.4.5. The permittee shall maintain monthly and annual records on the processing rate of sand to the five (5) Rotex Screens. The monthly and annual sand processing records may be maintained using the U.S. Silica Company computerized Production Tracking Data System (PTDS). Such records shall be maintained in accordance with Condition 3.4.2. of this permit.

[45CSR13, R13-2145, 4.2.2.] (Rotex Screens 1S – 5S)

5.4.6 **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of the current version of R13-2145, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2145, 4.4.2.] (CF #36, CF #6)

5.4.7. For the purpose of determining compliance with the emission limits as set forth in Sections 5.1.6.1 and 5.1.6.2, the permittee shall maintain all records that are required herein. Said records shall be maintained on site for a period of five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2015, B.1] [Stack # 25]

5.4.8. For the purpose of determining compliance with the process weight rate limitations set forth in Section 5.1.6.3 the permittee shall maintain monthly and annual records on the processing rate of sand to the Trash Vibrating Screen. Compliance with the monthly and annual process weight rate limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the process weight rate at any given time for the previous twelve (12) consecutive months. Said records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. The monthly and annual sand processing records may be maintained using the U.S.Silica Company computerized Production Tracking Data System (PTDS)

[45CSR13, R13-2015, B.2] [SCREN16]

5.4.9. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.4, the permittee shall maintain certified annual records that contain at a minimum the following:

Hours of Operation when the Trash Vibrating Screen is operating without the required control device (Cartridge Filter).

Said records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his/her duly authorized representative upon request.

[45CSR13, R13-2015, B.3] [CF#25]

5.4.10. For the purpose of determining compliance with the conditions set forth in Section 5.1.6.5, the permittee shall meet the following requirements for the control device CF#25:

- a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request.
- b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:
 1. The cause of malfunction
 2. Steps taken to:
 - correct the malfunction
 - minimize emissions during malfunction
 3. The duration of the malfunction in hours.
 4. The estimated increase in emissions during the malfunction.
 5. Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2015, B.4] [CF#25]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2.

[45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.15. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of the current version of R13-2145, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur.

For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[40 C.F.R. §60.676(b)(1); 45CSR16; 45CSR13, R13-2145, 4.4.3.] (CF #36, CF #6)

7.4.1. The permittee shall maintain a record of each periodic inspection required under 40 CFR §60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). Keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request.

[45CSR16, 40 CFR §60.676(b)(1), 45CSR13, R13-2145, 5.4.1.]

7.4.2. The permittee shall maintain a record of each visible emissions observation, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or 45CSR7A, whichever is appropriate. The record will 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 will 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.

[45CSR7A, 45CSR13, R13-2145, 5.4.2.]

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

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

[45CSR13, R13-2145, 5.4.3.]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.5.3. The Director shall be notified of the initial start-up of Bucket Elevators BE01 & BE02 and the load out spout with the DSH system within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available. This notification supersedes the notification requirements of Condition 2.18. of the current version of R13-2145.

[45CSR13, R13-2145, 4.5.1.; 40 C.F.R. §§60.676(i)(1) and (k); 45CSR16]

5.5.4. The permittee shall report the results of any test conducted as required in conditions 5.3.2., 5.3.3., 5.3.4., and 5.3.5. of this permit to the Director within 60 days after completing such testing.

[45CSR13, R13-2145, 4.5.2.; 40 C.F.R. §§60.676(f) and (k); 45CSR16]

7.5.1. The Director shall be notified of the initial start-up of Mobile conveyor (MOB-CONV) and Bucket Elevator (BE-03) within 15 days after such date. The notification of these sources can be included in a single notification and needs to include a description of each affected source, equipment manufacturer, and serial number of the equipment if available.

[45CSR16, 40 CFR §60.676(i), 45CSR13, R13-2145, 5.5.1.]

7.5.2. The permittee shall report the results of any test conducted as required in Section 7.3. of this permit to the Director within 60 days after completing such testing.

[45CSR16, 40 CFR §60.676(f), 45CSR13, R13-2145, 5.5.2.]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(3) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: Pulverizer Tank #19, SCREW3, SCREW5, SCREW4, #1 Mill Feed Bin, #2 Mill Feed Bin, #3 Mill Feed Bin, #4 Mill Feed Bin, FEEDB1, FEEDB2, FEEDB3, FEEDB4, MILL2, MILL3, MILL4, MILL5, SCREW6, AIRSD7, SCREW7, AIRSD8, ELEV6, ELEV7, ELEV8, ELEV9, AIRSE1, AIRSE2, AIRSE3, AIRSE4, AIRSD9, SCREW16, SCREW17, ELEV14, Pulverizer Tank #20, #5 Mill Feed Bin, FEEDB5, MILL6, AIRSD2, ELEV10, AIRSE5, SCREW18, #6 Mill Feed Bin, FEEDB6, MILL7, AIRSD3, ELEV11, AIRSE6, SCREW19, BF1, ELEV 22, ELEV24, Screen21, AIRSD1, Airslide 100, AIRSD1-GENERIC, ELEV15, BIN2		Emission unit name: Milling Process	
		List any control devices associated with this emission unit: 1C, 2C, CF #15, CF #46, CF #47, CF #45, CF #27, CF #10, CF #11, CF #39, CF #12, CF #41	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Milling Process and associated fugitive emissions.			
Manufacturer: NA		Model number: NA	
Construction date: 1981		Installation date: 1981	
		Serial number: NA	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 100			
Maximum Hourly Throughput: 100		Maximum Annual Throughput: 876,000 TPY	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No		If yes, is it?	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.614
Particulate Matter (PM ₁₀)	--	4.057
Total Particulate Matter (TSP)	--	10.735
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes: Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2 Total emissions are for all units associated with Milling Process.</p>		
<i>Applicable Requirements</i>		

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

Applicable Requirements

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

The maximum quantity of material to be processed by the Microsizer #3 and Handling Equipment shall be limited to the following:

Airslide 100 (Stack #41): 8 TPH

[45CSR13, R13-2595 (Condition A.1) and PD10-027] [Stack # 42 & 41]

Maximum particulate matter emissions to the atmosphere shall not exceed the following:

Airslide 100: 0.15 PPH and 0.66 TPY

[45CSR13, R13-2595 (Condition A.2) and PD10-027] [Stack # 42 & 41]

The following fugitive dust control measures as specified in Permit Application R13-2595 shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Airslide 100,: Torit DFT2-4-155 Baghouse (2C) at 99.9%

[45CSR13, R13-2595 (Condition A.3) and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.10.4. The stabilized static pressure loss across baghouse 2C and CF#42 shall remain between 0.5 to 6.0 inches of water. [45CSR13, R13-2595 (Condition A.4) and PD10-027] [Baghouse 2C & CF#42; Stack # 42 & 41]

5.1.10.5. Except during startup and shutdown, opacity from baghouse 2C and Stack #42 shall not exceed 10 percent based on a six minute block average. In order to determine compliance with this limit the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for stacks #41 and #42. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading.

[45CSR13, R13-2595 (Condition A.5) and PD10-027] [Stack # 42 & 41]

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

X Permit Shield

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

Monitoring Requirements

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(5) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: Microsizer #3, AIRSI12, AIRSI13, Tailing Bins, PNEU2, PNEU4, BIN7, #1 & #2 Pumps, PNEU1, ELEV16, 5 Micron Feed Bin, AIRSE8 - 16, 18 &19, ELEV17, BIN5, BIN4, PACKR7, ELEV23, PACKR4, PACKR3, PACKR5 (1e & 2e)		Emission unit name: Micron Production	
List any control devices associated with this emission unit: CF #11, CF #12, CF #13, CF #20, CF #34, CF #37, CF #38, CF #42			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Classification (10/15/30/40 Micron), 5 Micron Classification, and associated fugitive emissions.			
Manufacturer: NA		Model number: NA	
Serial number: NA		Construction date: 1998	
Installation date: 1998		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 150 TPH			
Maximum Hourly Throughput: 150		Maximum Annual Throughput: 1,314,000 TPY	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.446
Particulate Matter (PM ₁₀)	--	1.072
Total Particulate Matter (TSP)	--	3.074
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Micron Production. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2</p>		
Applicable Requirements		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit with the condition number</u>. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within ±0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0"</p>		

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

5.1.3.1. The maximum process weight rate for the permitted facilities (Ground Sand Packaging/Loading) shall not exceed 10 tons per hour.

[45CSR13, R13-991] [Ground Sand Packaging/Loading]

5.1.3.2. The particulate emission rate for Emission point 1e {Bulk Bagger (PACKR5), Stack # 34} as defined in Permit application No. 991, shall not exceed 0.1 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 1e]

5.1.3.3. The particulate emission rate for Emission point 2e (Room Venting, Stack # 34), as defined in Permit application No. 991, shall not exceed 0.5 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 2e]

Note : In original construction, emission points 1e and 2e were controlled by separate baghouses. Baghouses were replaced by one cartridge filter control device. PD ISSUED 5-16-94.

5.1.4.1. Emissions from Mikropul cartridge baghouse Model CFH-6-V-6"B" Emission point ID No. 37 (Stack # 37) and vented through Air Pollution Control Device ID No. 1C, shall not exceed 0.2 pounds of particulate matter per hour (lb./hr.).

[45CSR13, R13-1917, A.1] [Stack # 37]

5.1.4.2 The maximum amount of processed material charged into the feed bin (air pollution source 6S){5 Micron feed Bin}, return bucket elevator (top) (air pollution source 7S)[ELEV 16]and return bucket elevator (bottom) (air pollution source 8S) {ELEV 17}shall not exceed 37.5 tons per hour (TPH). [45CSR13, R13-1917, A.2] [6S, 7S, 8S]

5.1.4.3. Emissions from Mikropul Cartridge baghouse, Model CFH-6-V-12"B", Emission Point ID No. 38 (Stack # 38), and vented through Air Pollution Control Device ID No. 2C, shall not exceed 0.2 pounds of particulate matter per hour (lb/hr).

[45CSR13, R13-1917, A.3] [Stack # 38]

5.1.4.4. The maximum amount of processed material charged into the bulk storage bin (air pollution source 2S), product bin (air pollution source 1S) [Bin 5] , bulk loading spout (air pollution source 3S), the bagger bin (air pollution source 4S) [MIN-U-SIL Bagger bin], and stone container model 988 DM single spout bagger (air pollution source 5S) [PACKR7] shall not exceed 35.5 tons per hour (TPH).

[45CSR13, R13-1917, A.4] [1S to 5S]

The maximum quantity of material to be processed by the Microsizer #3 and Handling Equipment shall be limited to the following:

Airslide 100 (Stack #41): 8 TPH

[45CSR13, R13-2595 (Condition A.1) and PD10-027] [Stack # 42 & 41]

Maximum particulate matter emissions to the atmosphere shall not exceed the following:

Airslide 100: 0.15 PPH and 0.66 TPY

[45CSR13, R13-2595 (Condition A.2) and PD10-027] [Stack # 42 & 41]

The following fugitive dust control measures as specified in Permit Application R13-2595 shall be installed, maintained, and operated at all times when the facility is in operation in order to minimize fugitive particulate matter emissions:

Airslide 100,: Torit DFT2-4-155 Baghouse (2C) at 99.9%

[45CSR13, R13-2595 (Condition A.3) and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.10.4. The stabilized static pressure loss across baghouse 2C and CF#42 shall remain between 0.5 to 6.0 inches of water. **[45CSR13, R13-2595 (Condition A.4) and PD10-027] [Baghouse 2C & CF#42; Stack # 42 & 41]**

5.1.10.5. Except during startup and shutdown, opacity from baghouse 2C and Stack #42 shall not exceed 10 percent based on a six minute block average. In order to determine compliance with this limit the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for stacks #41and #42. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible

emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading.

[45CSR13, R13-2595 (Condition A.5) and PD10-027] [Stack # 42 & 41]

Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.2.2. The permittee shall monitor and maintain records of daily observations of pressure drop across baghouses 2C and CF#42.

[45CSR13, R13-2595, B.9 and PD10-027] [Baghouses 2C & CF#42; Stack # 28, 29 & 41]

5.2.4. Maintenance records for the air pollution control devices listed in 5.1.10.3. shall be maintained on site for a period of five (5) years. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:

- a. The equipment involved in the malfunction and the associated cause.
- b. Steps taken to correct the malfunction.
- c. The steps taken to minimize the emissions during the malfunction.
- d. The duration of the malfunction.
- e. The increase in emissions during the malfunction.
- f. Steps taken to prevent a similar malfunction in the future.

[45CSR13, R13-2595, B.8 and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0"

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(7) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

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

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: BIN4 SPOUT, Tank #7 & Tank #8, Tank #15 & Tank #16, Tanks #13 & #17, Tanks #9 - #12, Tanks #14 & #18, Steel Tank #21, CGS Tank, PEMCOTank, Supersil Storage Silos #1 - #4 (1e-4e), MIN-U-SIL storage silo #5 (5e), MIN-U-SIL storage silos #6 & #7 (6e & E1), MIN-U-SIL storage silo #8 (6e & E1), ISTANK18, Steel Storage Tank, SPOUT1, SPOUT2, SPOUT3, SPOUT4, SPOUT5, SPOUT6, QROK SPOUTS, #1 Stone Tank, #2 Stone Tank		Emission unit name: Storage Structures	
		List any control devices associated with this emission unit: CF #7, CF #9, CF #13, CF #27, CF #28, CF #29, CF #33, CF #34, CF #38	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Storage Structures and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
		Serial number: NA	
Construction date: 1981		Installation date: 1981	
		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	
		Maximum Operating Schedule: 8760 Hours/Year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	3.608
Particulate Matter (PM ₁₀)	--	5.069
Total Particulate Matter (TSP)	--	6.260
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Storage Structures. Allowable PM Stack Emissions (Type 'a' Source Operation) [45CSR§7-4.1] [Stacks 1, 7, 10, 11, 12, 13, 20, 27, 39, 40, Wsc#2]</p>		
<p>Applicable Requirements</p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>5.1.2. The following emission limits shall not be exceeded: Storage Silo #6: 0.05 PPH, Storage Silo #5: 0.05 PPH, Stack #33: 0.2 PPH [45CSR13, R13-750] [Stacks 28, 29 &33]</p> <p>5.1.3.1. The maximum process weight rate for the permitted facilities (Ground Sand Packaging/Loading) shall not exceed 10 tons per hour. [45CSR13, R13-991] [Ground Sand Packaging/Loading]</p>		

5.1.3.2. The particulate emission rate for Emission point 1e {Bulk Bagger (PACKR5), Stack # 34} as defined in Permit application No. 991, shall not exceed 0.1 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 1e]

5.1.3.3. The particulate emission rate for Emission point 2e (Room Venting, Stack # 34), as defined in Permit application No. 991, shall not exceed 0.5 pounds per hour.

[45CSR13, R13-991] [Stack # 34, Emission Point 2e]

Note : In original construction, emission points 1e and 2e were controlled by separate baghouses. Bagothouses were replaced by one cartridge filter control device. PD ISSUED 5-16-94.

5.1.4.3. Emissions from Mikropul Cartridge baghouse, Model CFH-6-V-12"B", Emission Point ID No. 38 (Stack # 38), and vented through Air Pollution Control Device ID No. 2C, shall not exceed 0.2 pounds of particulate matter per hour (lb/hr).

[45CSR13, R13-1917, A.3] [Stack # 38]

5.1.4.4. The maximum amount of processed material charged into the bulk storage bin (air pollution source 2S), product bin (air pollution source 1S) [Bin 5] , bulk loading spout (air pollution source 3S), the bagger bin (air pollution source 4S) [MIN-U-SIL Bagger bin], and stone container model 988 DM single spout bagger (air pollution source 5S) [PACKR7] shall not exceed 35.5 tons per hour (TPH).

[45CSR13, R13-1917, A.4] [1S to 5S]

5.1.5. Particulate matter (PM) emissions shall not exceed the following hourly and annual emission limits: Stack #28: 0.70 PPH and 0.07 TPY

[45CSR13, R13-1970, A.1] [Stack # 28]

5.1.9.1. The maximum hourly and annual processing rates of sand through the bulk sand bagger shall not exceed 30 TPH and 262,800 TPY, based on 8,760 hours of operation per year.

[45CSR13, R13-2299, A.1] [PACKR8]

5.1.9.2. The permittee shall operate the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C; Emission Point ID No. 1E - Stack #9), as outlined in Permit Application R13-2299.

[45CSR13, R13-2299, A.2] [Stack # 9]

5.1.9.3. In accordance with the requirements of 40 CFR 60, Subpart OOO, the maximum particulate (PM) emissions from the air pollution control device, the Torit Model Number 4DF32-155 Pulse Type Cartridge Dust Collector (Emission Point ID No. 1E - Stack #9), shall not exceed 0.022 grains per dry standard cubic foot (0.05 grams/dry standard meter).

[45CSR13, R13-2299, A.3; 40 C.F.R. § 60.672; 45CSR16] [Stack # 9]

6.1.2. The following Non-NSPS Fabric Filter pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the filters to attain the required minimum particulate removal efficiency. Filter pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the filter pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the filter and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0"

According to the CAM plan submitted, the differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stacks #1, 7, 10, 11, 12, 13, 20, 27, 39, 40]

X Permit Shield

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

Monitoring Requirements

Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 9, 25, 28, 29, 33, 34, 36, 37, 38 & 41]

5.2.1. Visible Emissions evaluations will be conducted as specified in Facility-wide requirements 3.2.1. [45CSR§30-5.1c]

5.2.2. The permittee shall monitor and maintain records of daily observations of pressure drop across baghouses 2C and CF#42.

[45CSR13, R13-2595, B.9 and PD10-027] [Baghouses 2C & CF#42; Stack # 28, 29 & 41]

5.2.4. Maintenance records for the air pollution control devices listed in 5.1.10.3. shall be maintained on site for a period of five (5) years. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of five (5) years. Certified copies of said records shall be made available to the Director or his/her duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:

- a. The equipment involved in the malfunction and the associated cause.
- b. Steps taken to correct the malfunction.
- c. The steps taken to minimize the emissions during the malfunction.
- d. The duration of the malfunction.
- e. The increase in emissions during the malfunction.
- f. Steps taken to prevent a similar malfunction in the future.

[45CSR13, R13-2595, B.8 and PD10-027] [Baghouses 2C & CF#42; Stack # 42 & 41]

5.1.11. The following cartridge filter or baghouse pressure drop ranges obtained from stack test and historical data are an indicator of compliance for the cartridge filter or baghouse to attain the required minimum particulate removal efficiency. Cartridge filter or baghouse pressure drop shall be monitored at least once per day. The monitoring device is to be certified to be accurate within 0.1 inch water gauge. An excursion shall be defined as when the Cartridge filter or baghouse pressure drop falls outside the following range. When an excursion occurs, the permittee shall conduct an inspection of the cartridge filter or baghouse and corrective actions shall be taken to return the pressure drop within the following range: 0.5-6.0”

According to the CAM plan submitted, the differential pressure gauges for the cartridge filter or baghouse shall be operated continuously during operation of the emission units.

[40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] [Stack # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Testing Requirements

5.3.1. The owner or operator shall determine compliance with the particulate matter standards in Section 5.1.1(a) according to Test method and Procedures in 40 C.F.R. §60.675.

[40 C.F.R. §60.675; 45CSR16]

NA [R30-06500001-2014 (MM01 & MM02) sections 6.3.]

Recordkeeping Requirements

For the #9 Torit Model No. 4DF32-155 Pulse Type Cartridge Dust Collector (Equipment ID No. 1C-CF#9):

a. Maintenance records shall be maintained on site for a period of five (5) years. Certified copies of these records shall

be made available to the Director or his duly authorized representative upon request.

b. Malfunctions shall be documented in writing and records of these malfunctions maintained at the facility for a period of 5 years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request. At minimum, the following information shall be documented for each malfunction:

- The cause of malfunction.
- Steps taken to:
 - correct the malfunction.
 - minimize emissions during malfunction.
- The duration of the malfunction in hours.
- The estimated increase in emissions during the malfunction.
- Any changes/modifications made to equipment and/or procedures that will help prevent future recurrence of the malfunction.

[45CSR13, R13-2423, B.5] [CF#9]

5.4.11. The permittee shall keep records of monitoring requirements of Section 5.2 as specified in Sections 3.4.1, 3.4.2. [45CSR§30-5.1c]

5.4.12. The permittee shall monitor and record the differential pressure drop across each fabric filter (during operation) on a daily basis.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.13. Qualified personnel shall perform visual inspections of the fabric filters control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters. The results of inspection and performance of routine maintenance shall be recorded.

[40 C.F.R. §64.3(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

5.4.14. *General recordkeeping requirements.* (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Recordkeeping will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.4.1., 3.4.2., 3.4.3 and 3.4.4. [45CSR§30-5.1c]

The monitoring required in R30-06500001-2014 (MM01 & MM02) sections 6.2.2 will be recorded. [45CSR§30-5.1c]

The permittee shall monitor and record the differential pressure drop across each fabric filter and the wet scrubber during operation on a daily basis. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

Qualified personnel shall perform visual inspections of the fabric filters and wet scrubber control devices at least monthly and perform routine maintenance to assure proper operation of the fabric filters and wet scrubber. The results of inspection and performance of routine maintenance shall be recorded. [40 C.F.R. §64.3(b); 45CSR§30-5.1.c.]

General recordkeeping requirements. (1) The owner or operator shall comply with the recordkeeping requirements specified in 40 C.F.R. §70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40CFR64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review and does not conflict with other applicable recordkeeping requirements. [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.]

Reporting Requirements

5.5.1. Reserved.

5.5.2. (a) *General reporting requirements.* (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

(ii) 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

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8.

Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] [CF # 6, 9, 25, 28, 29, 33, 34, 36, 37, 38, 41 & 42]

Reporting will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.5.6 and 3.5.8. [45CSR§30-5.1c]

General reporting requirements.

(9) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

(11) On and after the date specified in 40 C.F.R. §64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with 40 C.F.R. §70.6(a)(3)(iii) of this chapter.

) A report for monitoring under this part shall include, at a minimum, the information required under 40 C.F.R. §70.6(a)(3)(iii) of this chapter and the following information, as applicable:

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

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

) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R.

§64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.]

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

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

Emission Unit Description			
Emission unit ID number: STOCK1, CRUSH1, CRUSH2, SCREN1, SCREN2, SCREN3. TRUCK1, FEEDER1, CRUSH1, SCREN1, SCRENBC1, SCRENBC2, SCRENBC3, STACKBC1, STACKBC2, CRUSH2, CRUSHSCR1, SCRENBC4, SCRENBC5, SCRENBC6, SCRENBC7		Emission unit name: Limestone System	
List any control devices associated with this emission unit: CF #7, CF #9, CF #13, CF #27, CF #28, CF #29, CF #33, CF #34, CF #38			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Limestone System and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
Serial number: NA		Construction date: 1981	
Installation date: 1981		Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): ~21 TPH			
Maximum Hourly Throughput: ~21 TPH		Maximum Annual Throughput: 182,500 TPY	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	0.436
Particulate Matter (PM ₁₀)	--	9.563
Total Particulate Matter (TSP)	--	28.446
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Limestone System.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p> <p>4.1.1. In accordance with the information filed in Permit Application R13-3535, the equipment/processes identified under Section 1.0 Emission Units of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities and/or throughputs, and shall use the specified control devices.</p> <p>4.1.2. The maximum transfer rate of material through the crushers and screens shall not exceed hourly and annual throughput rates identified under Section 1.0 Emission Units of this permit. Said limits shall be based on a 12-month</p>		

rolling total.

4.1.3. The permitted facility shall comply with all applicable requirements of 45CSR§7 - “To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations,” provided that the facility shall comply with any more stringent requirements as may be set forth under section 4.1. of this permit. The pertinent sections of 45CSR§7 applicable to this facility include, but are not limited to, the following:

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

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

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

4.1.3.4. 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. The permitted facility shall comply with all applicable requirements of 45CSR§7, with the exception of any more stringent limitations set forth in Section 4.1. of this permit. [45CSR§7-5.1.]

4.1.3.5. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR§7-5.2.]

4.1.4. The facility is subject to 40 CFR 60 Subpart OOO, including but not limited to following:

4.1.4.1. Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart. [40CFR 60.670(a)(1)]

4.1.4.2. An affected facility under paragraph (a) of this section that commences construction, modification or reconstruction after August 31, 1983, is subject to the requirements of this part. [40CFR 60.670(e)]

4.1.4.3. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [40CFR 60.672(b)]

4.1.4.4. A crusher shall not discharge fugitive emissions into the atmosphere greater than 12 percent opacity; [40CFR§60.672(b)]

4.1.4.5. Fugitive emission from the transfer points on the belt conveyors shall not discharge fugitive emissions into the atmosphere greater than 7 percent opacity; [40CFR§60.672(b)]

4.1.5. Owners and Operators of Engines classified as Nonroad. Owners and operators of engines classified as nonroad must ensure that the engine does not remain at a location for more than 12 months, with location being any single site at a building, structure, facility or installation. [40CFR§1068.30]

A nonroad engine ceases to be a nonroad engine and becomes a new stationary engine if - (1) At any time, it meets the criteria specified in paragraph (2)(iii) in the definition of “nonroad engine”

in § 1068.30. For example, a portable generator engine ceases to be a nonroad engine if it is used or will be used in a single specific location for 12 months or longer. If we determine that an engine will be or has been used in a single specific location for 12 months or longer, it ceased to be a nonroad engine when it was placed in that location.

[40 CFR § 1068.31(e)(1)]

4.1.6. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR§13-5.10.]

Permit Shield

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

Monitoring Requirements

4.2.1. For the purpose of determining compliance with the opacity limits of 40 CFR 60 Subpart OOO, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

a. The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

b. Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

4.2.2. The permittee shall install instrumentation to measure both volumetric flow rate and water pressure as supplied to the facility's water spray bars on a daily basis. At the beginning and end of each operating day, the water pressure and ambient temperature shall be recorded. At the end of each operating day, the tonnage of rock processed, the amount of water (measured in gallons) utilized that day, the number of hours of operation, and a description of the day's weather conditions shall be recorded. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.3. The permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The permittee must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). Such records shall be maintained in accordance with Condition 3.4.1. of this permit. [40CFR§§60.674(b)]

The permittee may combine the records as required in Condition 4.2.2. and records of these monthly inspections into one document or logbook.

Testing Requirements

4.3.1. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of equipment, the permittee shall conduct performance test(s) to demonstrate compliance with the visible emission standards in Condition 4.1.4. for the sources listed in Section 1.0 of this permit. Such testing conducted in accordance with the following. [40CFR§60.8(a)]

(a) Such testing shall be conducted in accordance with Condition 3.3.1. of this permit.

(b) Such testing shall be conducted while the piece is processing or handling stone equal to or greater than 90 percent its hourly throughput limit as listed in Section 1.0 or at the maximum throughput possible.

(c) Method 9 of Appendix A-4, 40 CFR 60 shall be used with the following additions;

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

[40CFR§§60.675(c)(1)(i)]

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40CFR60, Section 2.1) must be followed. [40CFR§§60.675(c)(1)(ii)]

(iii) At locations where water sprays are employed at, the water mist must not be confused with particulate matter emissions and is not be considered visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. [40CFR§§60.675(c)(1)(iii)]

(iv) Duration of the Method 9 Observation must be 30 minutes (five 6-minute observations). Compliance with the visible emission standard in Conditions 4.1.1.c. and f. must be based on the average of five 6-minute averages.

[40CFR§§60.675(c)(3)]

(v) If emissions from two or more affected sources continuously interfere so that the opacity from an individual affected facility cannot be read, either of the following procedures may be used:

1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [40CFR§§60.675(e)(1)(i)]

2. Separate the emissions so that the opacity of emissions from each affected facility can be read.

[40CFR§§60.675(e)(1)(ii)]

(vi) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

1. No more than three emission points may be read concurrently. [40CFR§§60.675(e)(2)(i)]

2. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. [40CFR§§60.675(e)(2)(ii)]

3. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

[40CFR§§60.675(e)(2)(iii)]

(d) During such testing, the permittee shall monitor and record the water pressure, flow rate of the water sprays, and the hourly throughput or process rate of the piece of equipment at which the observation is occurring. Such records shall include the water pressure and flow rate at the beginning and the at end of the last observation for the actual operation day. Such records shall be included in with the test results and maintained in accordance with Condition 3.4.1 of this permit.

Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

4.4.2. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. For the purpose of determining compliance with maximum throughput and operation limits set forth in 4.1.2., the applicant shall maintain certified daily and monthly records. An example form is included as Appendix C. Compliance will be determined on a 12- month rolling total. These records shall be maintained on-site for a period of five (5) years and be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

4.4.5. The permittee shall maintain records of all monitoring data required by Section 4.2.1 documenting the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A. Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

Reporting Requirements

4.5.1. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

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

4.5.3. The permittee shall submit written notification of the following items within the specified time frames to the Director:

A notification of the actual date of initial startup of an affected facility dated within 15 days after such date. [40CFR§60.7(3)]

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

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

Emission Unit Description			
Emission unit ID number: Roads, Stockpile, Golf Sand Stockpile, Float Sand Stockpile, Quarry		Emission unit name: Miscellaneous	
List any control devices associated with this emission unit:			
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Miscellaneous sources and associated fugitive emissions			
Manufacturer: NA		Model number: NA	
Serial number: NA			
Construction date: 1970		Installation date: 1970	
Modification date(s): NA			
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	
Maximum Operating Schedule: 8760 Hours/Year			
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	15.716
Particulate Matter (PM ₁₀)	--	94.157
Total Particulate Matter (TSP)	--	343.939
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	--
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Miscellaneous Sources.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (<i>Note: Title V permit condition numbers alone are not the underlying applicable requirements</i>). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p>		
<p><input checked="" type="checkbox"/> Permit Shield</p>		

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

Monitoring Requirements

Testing Requirements

Recordkeeping Requirements

Reporting Requirements

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

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

<i>Emission Unit Description</i>			
Emission unit ID number: Tank No. 1 - Tank No. 8, Tank No. 11 - Tank No. 13, Tank No. 16, Tank No. 17, Tank No. 24 - Tank No. 33		Emission unit name: Miscellaneous	List any control devices associated with this emission unit:
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Liquid Storage Tank Emissions.			
Manufacturer: NA		Model number: NA	Serial number: NA
Construction date: Varies		Installation date: Varies	Modification date(s): NA
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies			
Maximum Hourly Throughput: Varies		Maximum Annual Throughput: Varies	Maximum Operating Schedule: 8760 Hours/Year
<i>Fuel Usage Data (fill out all applicable fields)</i>			
Does this emission unit combust fuel? No			If yes, is it?
Maximum design heat input and/or maximum horsepower rating:			Type and Btu/hr rating of burners:
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	--	--
Nitrogen Oxides (NO _x)	--	--
Lead (Pb)	--	--
Particulate Matter (PM _{2.5})	--	--
Particulate Matter (PM ₁₀)	--	--
Total Particulate Matter (TSP)	--	--
Sulfur Dioxide (SO ₂)	--	--
Volatile Organic Compounds (VOC)	--	0.018
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None	--	--
Other Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Notes:</p> <p>Total emissions are for all units associated with Liquid Storage Tank Sources.</p>		
<i>Applicable Requirements</i>		
<p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>Applicable Requirements</p>		
<p><input checked="" type="checkbox"/> Permit Shield</p>		

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

Monitoring Requirements

Testing Requirements

Recordkeeping Requirements

Reporting Requirements

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

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

Attachment G

Air Pollution Control Device Forms

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #1	List all emission units associated with this control device. CRUSH2, CONV3, CONV2	
Manufacturer: Donaldson	Model number: Torit DF-T4-32	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.4-3.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification**

Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #2	List all emission units associated with this control device. CRUSH3	
Manufacturer: Sly	Model number: Impinjet 270	Installation date: Unknown

Type of Air Pollution Control Device:			
Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone	
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank	
Carbon Drum(s)	X	Other Wet Scrubber	Settling Chamber
Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator	
Thermal Incinerator	Flare	Other (describe	
Wet Plate Electrostatic Precipitator			

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 98%
PM10	99.99%	> 98%
PM2.5	99.99%	> 98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.5-7.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification**

Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #3	List all emission units associated with this control device. DRYER1 (3s)	
Manufacturer: Sly	Model number: Impinjet 1130	Installation date: Unknown

Type of Air Pollution Control Device:		
Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	Settling Chamber
Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
Thermal Incinerator	Flare	Other (describe
Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 98%
PM10	99.99%	> 98%
PM2.5	99.99%	> 98%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-5.8		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #6	List all emission units associated with this control device. VIBFD5, ELEV4, CONV39-41, CONV29, CONV30, BE01, BE02, LS01	
Manufacturer: Donaldson	Model number: Torit 2DFA - 155	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #7	List all emission units associated with this control device. SCREN10-13 & SCREN2-4, SCREN17 (1E), ELEV1, ELEV2, ELEV3, CONV31, CONV33, TANK#13 & #17, TANK #7 & #8, TANK #15 & #16, TANK #14 & #18	
Manufacturer: Donaldson	Model number: Torit DFT-32-SH	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 3.0-5.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: WSc #8	List all emission units associated with this control device. DRYER2 (8s)	
Manufacturer: In House	Model number: NA	Installation date: Unknown

Type of Air Pollution Control Device:			
Baghouse/Fabric Filter		Venturi Scrubber	Single Cyclone
Carbon Bed Adsorber		Packed Tower Scrubber	Cyclone Bank
Carbon Drum(s)	X	Other Wet Scrubber	Settling Chamber
Catalytic Incinerator		Condenser	Dry Plate Electrostatic Precipitator
Thermal Incinerator		Flare	Other (describe
Wet Plate Electrostatic Precipitator			

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	> 90%
PM10	99.99%	> 90%
PM2.5	99.99%	> 90%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-2.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #9	List all emission units associated with this control device. SCREEN18 (1E), PACKR8 (IE), ELEV 19, ELEV20, ISTANK18, Steel Storage Tank, and SPOUT4	
Manufacturer: Donaldson	Model number: Torit 4DFT-32-155	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.5-4.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? No If Yes, Complete ATTACHMENT H If No, Provide justification Uncontrolled emission factors in AP-42 Chapter 11.19.2, Table 11.19.2-2 "Crushed Stone Processing Operations (8/04)"
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Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #10	List all emission units associated with this control device. SCREW3, #1 MILL FEED BIN, #2 MILL FEED BIN, FEEDB1, FEEDB2, SCREW6, AIRSD7, ELEV6, ELEV7	
Manufacturer: Mikropul	Model number: CFH 40T-20-B	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #11	List all emission units associated with this control device. SCREW5, #3 MILL FEED BINS, #4 MILL FEED BIN, FEEDB3, FEEDB4, SCREW7, AIRSD8, ELEV8, ELEV9, PNEU4, AIRSI13 and ELEV16	
Manufacturer: Donaldson	Model number: Torit DFT 4-48	Installation date: 3-15-2012

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #12	List all emission units associated with this control device. #5 MILL FEED BIN, FEEDB5, MILL6, ELEV10, #6 MILL FEED BIN, FEEDB6, AIRSD3, ELEV11, ELEV15, PNEU2, BIN7, #1 AND #2 PUMPS, AIRSI12, TAILING BINS	
Manufacturer: Mikropul	Model number: CFH 40T-20-B	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #13	List all emission units associated with this control device. ELEV23, CGS Tank, PEMCO Tank, SPOUT6	
Manufacturer: Donaldson	Model number: Torit DF-T3-24	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.8-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #15	List all emission units associated with this control device. ELEV25, FEEDB25, FEEDB26, SCREN25, BIN25, and PNEU25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1C	List all emission units associated with this control device. 1S, 2S, 3S, and 4S	
Manufacturer: Torit	Model number: DFT2-4-155	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 2C	List all emission units associated with this control device. 5S	
Manufacturer: Mikropul Torit	Model number: 8204B Baghouse DF2DF4	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #45	List all emission units associated with this control device. AIRSE25	
Manufacturer: Ecutech	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #46	List all emission units associated with this control device. HOPPER25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes
 If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).
 If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #47	List all emission units associated with this control device. TANK25	
Manufacturer: Cellulosic	Model number: Cartridge Filter	Installation date: 2016

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 2.0-3.5

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2016 R13 application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R13-2595A).

If No, **Provide justification**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #20	List all emission units associated with this control device. PACKR3 and PACKR4	
Manufacturer: Donaldson	Model number: Torit DF-T4-16	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.6-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #25	List all emission units associated with this control device. CONV25, SCREN16, CONV26, and CONV27	
Manufacturer: Donaldson	Model number: Torit DF-4DF-48	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.0-3.6		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #27	List all emission units associated with this control device. CONV51, PULVERIZER TANK #19, PULVERIZER TANK #20, TANKS #9-#12, STEEL TANK #21, SPOUT1, SPOUT2	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #28	List all emission units associated with this control device. MIN-U-SIL storage silos #6 & #7 (7e & E1), MIN-U-SIL Storage Silo #8 (63 & E1), SPOUT5	
Manufacturer: Donaldson	Model number: Torit DF-2D-F4	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.6-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #29	List all emission units associated with this control device. Minusil storage silo #5 (5e)	
Manufacturer: Micropul	Model number: CFH-18-20-VB	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-1.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #33	List all emission units associated with this control device. Supersil storage silos #1 - #4 (1e-4e)	
Manufacturer: Donaldson	Model number: Torit DF-T4-16	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.4-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #34	List all emission units associated with this control device. PACKR5 (1e & 2e), SPOUT3	
Manufacturer: Donaldson	Model number: Torit DF-2DF-4	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #36	List all emission units associated with this control device. SCREN 7-9 and 14-15 (1E)	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-2.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #37	List all emission units associated with this control device. 5 Micron Feed Bin, ELEV17, and BIN5	
Manufacturer: Micropul	Model number: CFH-8-20	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.5-5.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #38	List all emission units associated with this control device. BIN4, BIN 4 SPOUT, and PACKR7	
Manufacturer: Micropul	Model number: CFH-18-20-VB	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 2.0-4.5		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #39	List all emission units associated with this control device. ELEV14	
Manufacturer: Micropul	Model number: CFH 8-20-V	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 1.0-3.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: CF #40	List all emission units associated with this control device. PACKR1	
Manufacturer: Donaldson	Model number: Torit DF-T2-8	Installation date: Unknown

Type of Air Pollution Control Device:			
<input checked="" type="checkbox"/>	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.75-2.2		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Describe the parameters monitored and/or methods used to indicate performance of this control device. The differential pressure gauges for the filters shall be operated continuously during operation of the emission units.

Control device ID number: CF #41	List all emission units associated with this control device. BF1, Screen 21, ELEV22, ELEV24, AIRSD1, Airslide 100	
Manufacturer: Donaldson	Model number: DFT2-4-155	Installation date: Unknown

Type of Air Pollution Control Device:			
X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Indicator Range for Pressure Drop (in H2O): 0.5-6.0		

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes If Yes, Complete ATTACHMENT H CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014). If No, Provide justification

Control device ID number: CF #42	List all emission units associated with this control device. #3 Microsizer, PNEU1	
Manufacturer: Donaldson	Model number: DFT2-4-155	Installation date: Unknown

Type of Air Pollution Control Device:

X	Baghouse/Fabric Filter	Venturi Scrubber	Single Cyclone
	Carbon Bed Adsorber	Packed Tower Scrubber	Cyclone Bank
	Carbon Drum(s)	Other Wet Scrubber	Settling Chamber
	Catalytic Incinerator	Condenser	Dry Plate Electrostatic Precipitator
	Thermal Incinerator	Flare	Other (describe
	Wet Plate Electrostatic Precipitator		

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
TSP	99.99%	99.9%
PM10	99.99%	99.9%
PM2.5	99.99%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Indicator Range for Pressure Drop (in H2O): 1.5-5.0

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted with 2014 renewal application. The WVDEP approved and incorporated the applicable requirement into the Title V permit (R30-06500001-2014).

If No, **Provide justification**

Attachment H

Compliance Assurance Monitoring (CAM) Forms

All PSEUs and/or associated control devices were addressed in previous Title V renewal applications. No changes to the prior CAM forms and plan are necessary.

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*):

YES NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
- e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.

INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU In order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
CF #11	Mill Processing control device	Particulate matter, PM-10	Dry filter dust collector	Allowable PM Stack Emissions: 37 lb/hr [45CSR§7-4.1] [Stack 11]	Differential pressure gauges for the filters shall be operated continuously during operation of the emission units. [40 C.F.R. §64.3(a)(2); 45CSR§30-5.1.c.] Visible emissions evaluations will be conducted as specified in facility-wide requirements R30-06500001-2014 (MM01 & MM02) sections 3.2.1. [45CSR§30-5.1c]
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: CF #11	4b) Pollutant: PM-10	4c) ^a Indicator No. 1: Differential pressure	4d) ^a Indicator No. 2: Visible emissions
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Differential pressure	Visible emissions using 40 CFR Part 60, Appendix A, Method 22
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		0.5 to 6.0 (in wc)	No visible emissions for more than six minutes.
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Equipment: Differential pressure Gauge. Monitoring location: Across inlet and outlet ducts.	In accordance with the monitoring requirements identified under Method 22.
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		NA	NA
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Calibrate, maintain, and operate instruments using procedures that take into account manufacturer's recommendations.	Calibrate, maintain, and operate instruments using procedures that take into account manufacturer's recommendations.
^d Provide the <u>MONITORING FREQUENCY</u> :		Once per day	At least each calendar week during periods of normal facility operation
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Operators log data manually	Observers complete opacity or VE observation forms and log into binder.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		Once per day	The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen minute period.

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
CF #11

6b) Regulated Air Pollutant:
PM-10

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

Pressure differential: Decreases in pressure differential would indicate increases in gas flow or poor distribution across the filter media; increases in pressure differential would indicate filter clogging or decreased gas flow from sources.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

Engineering judgment, historical plant records of pressure differential as a maintenance indicator, and manufacturer's specifications.

Potential to Emit Calculations

Input Data

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Input for Material Transfer, Screening, and Crushing Calculations

Process	Activity	Throughput * (tons/hour)	Control Method	Title V ID
Primary Crushing	Truck Unloading - Fragmented Stone	1,000	None	VIBFD1
Primary Crushing	Primary Crushing (Jaw) - Dry	800	Fabric Filter - No Enclosure	CRUSH2
Primary Crushing	Conveyor Transfer - Dry	800	Fabric Filter	CONV3
Primary Crushing	Conveyor Transfer - Dry	800	Fabric Filter	CONV2
Primary Crushing	Conveyor Transfer - Dry	800	None	CONV1
Primary Crushing	Conveyor Transfer - Dry	800	Partial Enclosure (skirt)	Reclaim Stockpile
Secondary Crushing	Conveyor Transfer - Dry	400	Partial Enclosure (skirt)	VIBFD2
Secondary Crushing	Conveyor Transfer - Dry	400	Partial Enclosure	CONV4
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV5
Secondary Crushing	Secondary Crushing (All) - Dry	400	Wet Scrubber	CRUSH3
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV7
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV6
Storage Structures	Conveyor Transfer - Dry	400	Enclosed by Building	#1 Stone Tank
Secondary Crushing	Conveyor Transfer - Dry	400	Full Enclosure (boot)	CONV8
Storage Structures	Conveyor Transfer - Dry	400	Enclosed by Building	#2 Stone Tank
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV12
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV13
Wet Processing Plant	Conveyor Transfer - Dry	200	Full Enclosure (boot)	CONV14
Wet Processing Plant	Fines Crushing (All) - Wet Suppression	200	Full Enclosure (boot)	MILL1
Wet Processing Plant	Conveyor Transfer - Wet Suppression	150	Saturated Material (No Visible Emissions)	CONV15
Wet Processing Plant	Screening (All) - Wet Suppression	200	Full Enclosure (boot)	SCREN1
Wet Processing Plant	Screening (All) - Wet Suppression	200	Saturated Material (No Visible Emissions)	CLASS4&7
Wet Processing Plant	Screening (All) - Wet Suppression	200	Saturated Material (No Visible Emissions)	FERRO1
Wet Processing Plant	Screening (All) - Wet Suppression	160	Saturated Material (No Visible Emissions)	FCell
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	None	TANK2
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Saturated Material (No Visible Emissions)	PIPE1
Wet Processing Plant	Screening (All) - Wet Suppression	200	Full Enclosure (boot)	WETSE1 - WETSE5
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV17
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Saturated Material (No Visible Emissions)	CONV18
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV19
Miscellaneous	Conveyor Transfer - Wet Suppression	200	Enclosed by Building	Stockpile
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV21
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV23
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Full Enclosure (boot)	CONV20 & CONV22
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	None	VIBFD4
Wet Processing Plant	Conveyor Transfer - Wet Suppression	200	Partial Enclosure (skirt)	CONV24
Wet Processing Plant	Conveyor Transfer - Dry	200	Wet Scrubber	DRYER #1 (3s)
Wet Processing Plant	Screening (All) - Dry	200	Fabric Filter	SCREN16
Wet Processing Plant	Conveyor Transfer - Dry	200	Fabric Filter	CONV25
Wet Processing Plant	Conveyor Transfer - Dry	50	Full Enclosure (boot)	CONV54
Wet Processing Plant	Fines Crushing (All) - Dry	50	Full Enclosure (boot)	MILL8
Wet Float Plant	Conveyor Transfer - Dry	25	Saturated Material (No Visible Emissions)	Slurry Pumps
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CYCL04 & CYCL05
Wet Float Plant	Screening (All) - Wet Suppression	25	Saturated Material (No Visible Emissions)	FERRO2
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CYCL03
Wet Float Plant	Screening (All) - Wet Suppression	25	Enclosed by Building	CLASS5
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	Conditioner
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	Floatation
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	None	Vacuum Table
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	SCREW21
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV48
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	Drain Shed
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV50
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Enclosed by Building	CONV49
Wet Float Plant	Conveyor Transfer - Dry	25	Wet Scrubber	DRYER #2 (8S)
Wet Float Plant	Conveyor Transfer - Dry	25	Enclosed by Building	SCREW22
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ELEV19
Wet Float Plant	Screening (All) - Dry	50	Fabric Filter	SCREN18 (1E)
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ELEV20
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	ISTANK18
Wet Float Plant	Conveyor Transfer - Dry	25	Fabric Filter	Steel Storage Tank
Wet Float Plant	Conveyor Transfer - Dry	30	Fabric Filter	PACKR8 (1E)
Wet Float Plant	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT4
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CONV46
Wet Float Plant	Conveyor Transfer - Wet Suppression	25	Saturated Material (No Visible Emissions)	CONV47
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV26
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV27
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	ELEV4
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	VIBFD5
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV39-41
Screening and Unground Sanding Processing	Screening (All) - Dry	375	Fabric Filter	SCREN7-9 & SCREN14-15 (1E)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	30	Fabric Filter	CONV30
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	30	Fabric Filter	ELEV2

Input Data

Company Name: U.S. Silica
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Project: Potential to Emit Calculations

Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	ELEV3
Screening and Unground Sanding Processing	Screening (All) - Dry	75	Fabric Filter	SCREN10-13 & SCREN2-4
Screening and Unground Sanding Processing	Screening (All) - Dry	50	Fabric Filter	SCREN17 (1E)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV33
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	None	CONV34
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	125	Fabric Filter	CONV29
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	ELEV1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	CONV31
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	75	Fabric Filter	CONV32
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tanks #9 - #12
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #7 & #8
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #15 & #16
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #13 & #17
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	Tank #14 & #18
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	110	Full Enclosure (boot)	CONV36
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	110	Full Enclosure (boot)	CONV37
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	100	Fabric Filter - Partial Enclosure	Steel Tank #21
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Full Enclosure (boot)	QROK SPOUTS
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter	BE01 (E2)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter	BE02 (E2)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	LS01 (FE3)
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	36	Fabric Filter	PACKR1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	200	Fabric Filter	CONV51
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT1
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT2
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	300	Full Enclosure (boot)	MOB-CONV
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	100	Full Enclosure (boot)	BE-03
Screening and Unground Sanding Processing	Conveyor Transfer - Dry	150	Full Enclosure (boot)	C Silo
Milling	Conveyor Transfer - Dry	150	Fabric Filter	Pulverizer Tank #19
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#1 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#2 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB1
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB2
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL2
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL3
Milling	Conveyor Transfer - Dry	100	Fabric Filter	SCREW6
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD7
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV6
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV7
Milling	Conveyor Transfer - Dry	30	Fabric Filter	SCREW3
Milling	Conveyor Transfer - Dry	30	Fabric Filter	SCREW5
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#3 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#4 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB3
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB4
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL4
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL5
Milling	Conveyor Transfer - Dry	100	Fabric Filter	SCREW7
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD8
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV8
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV9
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW16
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW17
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE3
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE4
Milling	Conveyor Transfer - Dry	30	Full Enclosure (boot)	SCREW4
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE1
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE2
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD9
Milling	Conveyor Transfer - Dry	150	Fabric Filter	Pulverizer Tank # 20
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#5 Mill Feed Bin
Milling	Conveyor Transfer - Dry	100	Fabric Filter	#6 Mill Feed Bin
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB5
Milling	Conveyor Transfer - Dry	15	Fabric Filter	FEEDB6
Milling	Fines Crushing (All) - Dry	100	Fabric Filter	MILL6
Milling	Fines Crushing (All) - Dry	100	Full Enclosure (boot)	MILL7
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD2
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD3
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV10
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV11
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE5
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSE6
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW18
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	SCREW19
Milling	Conveyor Transfer - Dry	100	Fabric Filter	AIRSD1
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV 22
Milling	Conveyor Transfer - Dry	8	Fabric Filter	Airslide 100
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV24
Milling	Fines Screening (All) - Dry	25	Fabric Filter	Screen21
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	AIRSD1-GENERIC
Milling	Conveyor Transfer - Dry	100	Fabric Filter	ELEV15
Milling	Conveyor Transfer - Dry	100	Full Enclosure (boot)	BIN2
Milling	Conveyor Transfer - Dry	20	Fabric Filter	BF1
Milling	Screening (All) - Dry	25	Fabric Filter	Microsizer #3
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU1
Milling	Fines Screening (All) - Dry	85	Fabric Filter	AIRSD12
Milling	Fines Screening (All) - Dry	85	Fabric Filter	AIRSD13
Milling	Conveyor Transfer - Dry	130	Fabric Filter	Tailing Bins
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU2
Milling	Conveyor Transfer - Dry	15	Fabric Filter	PNEU4
Milling	Conveyor Transfer - Dry	15	Fabric Filter	#1 & #2 Pumps
Milling	Conveyor Transfer - Dry	15	Fabric Filter	BIN7
Micron Production	Conveyor Transfer - Dry	10	Fabric Filter	BIN4

Input Data

Company Name: U.S. Silica
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Project: Potential to Emit Calculations

Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	5 Micron Feed Bin
Micron Production	Fines Screening (All) - Dry	20	Full Enclosure (boot)	AIRSEB-16, 18 &19
Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	ELEV17
Micron Production	Conveyor Transfer - Dry	150	Fabric Filter	ELEV16
Micron Production	Conveyor Transfer - Dry	10	Fabric Filter	BIN5
Storage Structures	Conveyor Transfer - Dry	10	Fabric Filter - Partial Enclosure	BIN4 SPOUT
Micron Production	Conveyor Transfer - Dry	15	Fabric Filter	PACKR7
Milling	Conveyor Transfer - Dry	150	Fabric Filter	ELEV14
Storage Structures	Conveyor Transfer - Dry	125	Fabric Filter	Supersil Storage Silos #1 - #4 (1e-4e)
Storage Structures	Conveyor Transfer - Dry	100	Fabric Filter	MIN-U-SIL storage silo #8 (6e & F1)
Storage Structures	Conveyor Transfer - Dry	125	Fabric Filter	MIN-U-SIL storage silo #5 (5e)
Storage Structures	Conveyor Transfer - Dry	100	Fabric Filter	MIN-U-SIL storage silos #6 & #7 (6e & F1)
Micron Production	Conveyor Transfer - Dry	20	Fabric Filter	PACKR3
Micron Production	Conveyor Transfer - Dry	20	Fabric Filter	PACKR4
Storage Structures	Conveyor Transfer - Dry	200	Fabric Filter - Partial Enclosure	SPOUT3
Micron Production	Conveyor Transfer - Dry	15	Fabric Filter	PACKR5 (1e & 2e)
Storage Structures	Conveyor Transfer - Dry	150	Fabric Filter - Partial Enclosure	SPOUT5
Micron Production	Conveyor Transfer - Dry	100	Fabric Filter	ELEV23
Storage Structures	Conveyor Transfer - Dry	800	Fabric Filter	CGS Tank
Storage Structures	Conveyor Transfer - Dry	250	Fabric Filter	PEMCOtank
Storage Structures	Conveyor Transfer - Dry	250	Fabric Filter - Partial Enclosure	SPOUT6
Miscellaneous	Drilling	1,000	None	
Miscellaneous	Truck Loading - Crushed Stone	1,000	None	

A. Throughputs based on TVOP Application Forms
 B. Control methods and release points from Title V permit and Process Flow Diagram provided by US Silica.

Input for Limestone System

Process	Process Unit Description	Throughput ^A (tons/year)
Limestone	1 - Crushing	4,380,000
Limestone	2 - Screening	4,380,000
Limestone	3 - Transfer Points	4,380,000
Limestone	4 - Stockpiles	4,380,000
Limestone	5 - Unpaved Haul Roads	

Input for Baghouse Calculations

Process Unit Description	Flowrate ^A (dscfm)	Outlet Grain Loading ^B (gr/dscft)	Annual Hours of Operation ^C (hrs/year)	MMDSF per Year
Fluid Bed Dryer & Rotary Dryer			8,760	
Screening and Underground Sanding Processing CF#40	5,500	0.014	8,760	2891
Screening and Underground Sanding Processing CF#6	20,000	0.014	8,760	10512

Fluid Bed Dryer
 Dust Collector #40
 Dust Collector #6

A. Flowrates based on make and model specifications.
 B. Outlet grain loading from TVOP Outlet Grain Loading Limits
 C. Annual hours of operation are assumed to be 8,760 hr/yr.

Input for Unpaved Road Emission Calculations

Vehicle Type	Product Handled	Weight Empty ^A (tons)	Weight Full ^B (tons)
Haul Trucks/Trucks	Quarried material	68	158

A. Truck weight when empty from specification sheet for Euclid R858 haul truck
 B. Truck weight when loaded from specification sheet for Euclid R858 haul truck

Title V ID	Source Description	Trip Description	Vehicle Type	Product Handled	Annual Throughput ^A (tons/year)	Roundtrip Length ^B (miles/trip)
Roads	Facility Roadways	Unpaved Haul Roads	Haul Trucks/Trucks	Quarried material	8,760,000	2.00
Roads	Facility Roadways	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	8,760,000	1.00
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	4,380,000	0.40

A. Annual throughput based on maximum quarry throughput.
 B. Average round trip length estimate provided by U.S. Silica. Assumed 2 miles of total trip on haul roads and 1 mile of total trip on unpaved plant roads.

Input for Combustion Emission Calculations

Title V ID	Source Description	Process Unit Description	Fuel Type ^A	Fuel Heating Value (MMBtu/MMSCF or MMBtu/1,000 gal)	Propane Throughput ^C (1,000 gallons/yr)	Natural Gas Throughput ^C (MMSCF/yr)	Fuel Oil Throughput ^C (1,000 gal/yr)
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	150.00			4,146.40
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	150.00			4,146.40
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	91.50			6,797.38
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	140.00			4,442.57
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	1,020.00		609.76	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	91.50	1,637.11		

A. Fuel types provided by U.S. Silica
 B. Higher heating values based on AP-42 conversion factors where not specified in permit.
 C. Annual consumption of each fuel type assumed to be max fuel consumption operating at 8760 hr/yr.

Fuel Type	Sulfur Content in Fuel (%)	Reference	Ash Content in Fuel (%)	Reference	Density (lb/gal)
Recycled Oil	1.5	TVOP Limit	0	U.S. Silica Records	7.351
No. 2 Fuel Oil	0.2	TVOP Limit	0	Replace with site data when available.	-
No. 6 Fuel Oil	1.5	TVOP Limit	0	Replace with site data when available.	-

A. Fuel ash content based on U.S. Silica records and a 20% compliance margin.

Input for Permitted Limit Emission Calculations

Title V ID	Emission Factor ^{A,B}			Input Data	
	Value	Units	Pollutant	Value	Units
Material Transfer/Conveying	1	lb/hr	PM	8,760	hrs/year
Material Transfer/Conveying	1	lb/hr	PM10	8,760	hrs/year
Material Transfer/Conveying	0.8	lb/hr	PM2.5	8,760	hrs/year
Screening	0.685	lb/hr	PM	8,760	hrs/year
Screening	0.685	lb/hr	PM10	8,760	hrs/year
Screening	0.548	lb/hr	PM2.5	8,760	hrs/year
Bulk Load and BFS Bagger	0.685	lb/hr	PM	8,760	hrs/year
Bulk Load and BFS Bagger	0.685	lb/hr	PM10	8,760	hrs/year
Bulk Load and BFS Bagger	0.548	lb/hr	PM2.5	8,760	hrs/year
Bulk Bagger	0.1	lb/hr	PM	8,760	hrs/year
Bulk Bagger	0.1	lb/hr	PM10	8,760	hrs/year
Bulk Bagger	0.08	lb/hr	PM2.5	8,760	hrs/year
#6 Silo	0.05	lb/hr	PM	8,760	hrs/year
#6 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#6 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#7/#8 Silo	0.70	lb/hr	PM	8,760	hrs/year
#7/#8 Silo	0.70	lb/hr	PM10	8,760	hrs/year
#7/#8 Silo	0.56	lb/hr	PM2.5	8,760	hrs/year
#5 Silo	0.05	lb/hr	PM	8,760	hrs/year
#5 Silo	0.05	lb/hr	PM10	8,760	hrs/year

Input Data

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

#5 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#4 Silo	0.05	lb/hr	PM	8,760	hrs/year
#4 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#4 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#3 Silo	0.05	lb/hr	PM	8,760	hrs/year
#3 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#3 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#2 Silo	0.05	lb/hr	PM	8,760	hrs/year
#2 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#2 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year
#1 Silo	0.05	lb/hr	PM	8,760	hrs/year
#1 Silo	0.05	lb/hr	PM10	8,760	hrs/year
#1 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year

A. Emission factors from Title V permit.
 B. Assume PM₁₀ emissions = PM emissions. PM_{2.5} emission factors assumed to be 80% of PM₁₀ emission factors.

Input for Stockpile Emission Calculations

Title V ID	Stockpile Area ^A (acres)	Number of Active Days per Year ^B (days/year)	Control Method
Golf Sand Stockpile & Float Sand Stockpile	5.63	365	None
Reclaim Stockpile	1,386	365	Partial Enclosure (skirt)

A. Assumed same stockpile area that was reported for Reporting Year 2016. Reclaim stockpile area estimated from Google Earth.
 B. Active stockpiles are those piles that have at least 8 hours of activity per 24 hours.

Input for Blasting Emission Calculations

Title V ID	Amount of Material Removed per Blast ^A (tons)	Total Amount Removed ^B (tons)	Control Method	Horizontal Area Removed per Blast ^A (ft ²)	Number of Blasts per Year ^C
Quarry	171,765	8,760,000	None	5978.82	51

A. Horizontal area removed per blast from U.S. Silica data
 B. Total amount of material removed assumed to be maximum potential material processed downstream.
 C. Number of blasts per year from 2022 Blast Records and 20% compliance margin.

Input for Tank Emission Calculations

Process	Capacity (gallons)	Material	Title V ID
Diesel Fuel Tank	10,000	Diesel	Tank No. 1
Used Oil Tank at Maintenance garage	275	Used Oil	Tank No. 2
Used Oil Tank at Maintenance garage	275	Used Oil	Tank No. 3
#1 Oil Tank at Maintenance garage	275	Oil	Tank No. 4
#2 Oil Tank at Maintenance garage	275	Oil	Tank No. 5
#3 Oil Tank at Maintenance garage	275	Oil	Tank No. 6
#4 Oil Tank at Maintenance garage	275	Oil	Tank No. 7
Recycled Oil Tank near Float Plant	10,000	Recycled Oil	Tank No. 8
Kerosene Tank at C & R Shop	275	Kerosene	Tank No. 11
Gasoline Tank at Office Building	1,000	Gasoline	Tank No. 12
Lube Oil Tank at Secondary Crusher	300	Lube Oil	Tank No. 13
Recycled Oil	30,000	Recycled Oil	Tank No. 16
Recycled Oil	30,000	Recycled Oil	Tank No. 17
Petroleum Sulfonate (Conditioner) Tank at Float Plant	275	Conditioner	Tank No. 24
Two Propane Tanks at the electric shop 30,000 gallon each	60,000	Propane	Tank No. 25
Propane Tank at the Quarry	2,000	Propane	Tank No. 26
Propane Tank at #6 Oil Building	1,000	Propane	Tank No. 27
Two Propane Tanks at the C&R Shop	1,000	Propane	Tank No. 28
Sodium Hydroxide Tank	8,200	Sodium Hydroxide	Tank No. 29
Sulfuric Acid Tank	6,000	Sulfuric Acid	Tank No. 30
Flocculent Tank	550	Flocculent	Tank No. 31
Anti-foam Tank	2,500	Anti-foam	Tank No. 32
Promoter Tank	12,000	Promoter	Tank No. 33

Emission Factors for Material Transfer, Screening, and Crushing

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Sources	Emission Factors					
	PM (lb/ton)	Reference	PM ₁₀ (lb/ton)	Reference	PM _{2.5} (lb/ton)	Reference
Primary Crushing (Jaw) - Dry	0.0007	B	0.00033	B	0.00005	D
Primary Crushing (Jaw) - Wet Suppression	0.00021	B	0.0001	B	0.00002	D
Secondary Crushing (All) - Dry	0.00504	B	0.0024	B	0.00036	D
Secondary Crushing (All) - Wet Suppression	0.0012	B	0.00054	B	0.00008	D
Tertiary Crushing (All) - Dry	0.0054	A	0.0024	A	0.00036	D
Tertiary Crushing (All) - Wet Suppression	0.0012	A	0.00054	A	0.0001	A
Fines Crushing (All) - Dry	0.039	A	0.015	A	0.002271	D
Fines Crushing (All) - Wet Suppression	0.003	A	0.0012	A	0.00007	A
Screening (All) - Dry	0.025	A	0.0087	A	0.0013	D
Screening (All) - Wet Suppression	0.0022	A	0.00074	A	0.00005	A
Fines Screening (All) - Dry	0.3	A	0.072	A	0.011	D
Fines Screening (All) - Wet Suppression	0.0036	A	0.0022	A	0.00033	D
Conveyor Transfer - Dry	0.003	A	0.0011	A	0.00017	D
Conveyor Transfer - Wet Suppression	0.00014	A	0.000046	A	0.000013	A
Truck Unloading - Fragmented Stone	0.000034	B	0.000016	A	0.000002	D
Truck Loading - Crushed Stone	0.00021	B	0.0001	A	0.00002	D
Drilling	0.001	E	0.0008	E	0.00080	E
Clay Grinding and Screening (All) - Dry	8.5	C	0.53	C	0.080	D
Clay Grinding and Screening (All) - Wet Suppression	0.025	C	0.0023	C	0.00035	D

A. U.S. EPA, AP-42 Section 11.19.2 - Crushed Stone Processing and Pulverized Mineral Processing (August 2004), Table 11.19.2-2. Per footnote b, controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays.

B. TCEQ Air Permits Division, Rock Crusher Emission Calculations spreadsheet, https://www.tceq.texas.gov/permitting/air/guidance/newsource/rocks/nsr_fac_rock.html, Downloaded on January 5, 2015.

C. U.S. EPA, AP-42 Section 11.3 - Brick and Structural Clay Product Manufacturing (August 1997), Table 11.3-2.

D. PM_{2.5} emission factor is calculated by dividing the PM₁₀ emission factor by the ratio of PM₁₀ to PM_{2.5} particle size multipliers (k). The Particle size multipliers are from U.S. EPA, AP-42 Section 13.2.4 - Aggregate Handling and Storage Piles (November 2006), table following Equation 1.

k for PM ₁₀	0.35
k for PM _{2.5}	0.053
Ratio of PM ₁₀ to PM _{2.5}	6.6

E. Mojave Desert Air Quality Management District (AQMD) Emissions Inventory Guidance, Mineral Handling and Processing Industries. April 10, 2000

Emission Factors for Combustion

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Pollutants	Emission Factors (lb/1,000 gallon)		Emission Factors (lb/1,000 gallon)						Emission Factors (lb/10 ⁶ scf)	
	Propane	Reference	No. 2 Fuel Oil	Reference	No. 6 Fuel Oil	Reference	Recycled Oil	Reference	Natural Gas	Reference
NO _x	19	I	20	I	55	I	19	I	100	J
CO	3.2	I	5	I	5	I	5	I	84	J
SO ₂	0.054	A, G	28.4	C	235.5	C	221	F	0.6	J
PM (con)	0.5	A	1.3	C	1.5	C	1.5	C	5.7	J
PM (filt)	0.2	A	2	C	17.005	C	0	F	1.9	J
PM ₁₀ (filt)	0.2	A	1	C	14.70	C	0	F	1.9	J
PM _{2.5} (filt)	0.2	A	0.25	C	9.57	C	0	F	1.9	J
CO ₂	12586.574	H	22454.256	H	24783.00	H	23117.6	H	120018.54	H
CH ₄	0.6006	H	0.9108	H	0.99	H	0.9372	H	2.26	H
N ₂ O	0.12012	H	0.18216	H	0.198	H	0.18744	H	0.23	H
VOC	0.3	I	0.2	I	0.28	I	0.22	I	5.5	J
NH ₃	0.29	B	0.8	D	0.8	E	0.8	E	0.49	B
Lead	0	--	0.00126	C	0.0015	C	0.1015	F	0.0005	J

A. U.S. EPA, AP-42 Section 1.5 - Liquefied Petroleum Gas Combustion (July 2008), Table 1.5-1.

B. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200602, uncontrolled. Assuming emission factor from Propane same as emission factor for Natural Gas.

C. U.S. EPA, AP-42 Section 1.3 - Fuel Oil Combustion (May 2010), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-5, 1.3-6, 1.3-10 and 1.3-11. Some SO₂ and particulate emission factors are calculated by multiplying emission factor by the sulfur and/or ash content in fuel. PM(con) emission factor for Recycled Oil is assumed to be the same as that for No. 6 Fuel Oil. Sample calculations are included below for representative factors that were calculated. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel.

$$\text{Recycled Oil SO}_2 \text{ Factor (lb/1,000 gallon)} = \frac{147 \text{ lb}}{1,000 \text{ gallon}} \times 1.5 \% \text{ Sulfur} = 220.50 \text{ lb SO}_2 / 1,000 \text{ gallon}$$

D. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200501, uncontrolled. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel.

E. U.S. EPA, Factor Information Retrieval Data System (FIRE), <http://cfpub.epa.gov/webfire/index.cfm?action=fire.report>, Downloaded on January 9, 2015, SCC 10200401. Assuming emission factor for Recycled Oil to be same as No. 6 Fuel Oil.

F. U.S. EPA, AP-42 Section 1.11 - Waste Oil Combustion (October 1996), Tables 1.11-1, 1.11-2, and 1.11-3. Assumed lead content of fuel = 18.45 ppm from maximum measure lead content from provided fuel delivery chemical analyses.

G. Sulfur content estimate for propane from A National Methodology and Emission Inventory for Residential Fuel Consumption, <http://www.epa.gov/ttnchie1/conference/ei12/area/haneke.pdf>

H. 40 CFR Part 98, Subpart C, Tables C-1 and C-2. Heating value for recycled oil taken from US Silica records. Heating values for other fuels from default values in Table C-1.

I. Facility's Title V permit, Condition 4.4.2.

J. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Table 1.4-1 and 2.

Emission Factors for Combustion

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Pollutants	Natural Gas (lb/MMSCF)	Emission Factors (lb/1,000 gallon)								Emission Factors (lb/10 ⁶ scf)	
		Propane	Reference	No. 2 Fuel Oil	Reference	No. 6 Fuel Oil	Reference	Recycled Oil	Reference	Natural Gas	Reference
Antimony	-	-	-	-	-	5.25E-03	B	4.50E-03	C	-	-
Arsenic	2.00E-04	1.78E-05	A	5.52E-04	B	1.32E-03	B	7.35E-03	D	2.00E-04	E
Beryllium	1.20E-05	1.07E-06	A	4.14E-04	B	2.78E-05	B	1.80E-03	C	1.20E-05	E
Cadmium	1.10E-03	9.81E-05	A	4.14E-04	B	3.98E-04	B	8.82E-03	D	1.10E-03	E
Chloride	-	-	-	-	-	3.47E-01	B	3.47E-01	B	-	-
Chromium	1.40E-03	1.25E-04	A	4.14E-04	B	8.45E-04	B	1.84E-02	D	1.40E-03	E
Cobalt	8.40E-05	7.49E-06	A	-	-	6.02E-03	B	5.70E-03	C	8.40E-05	E
Manganese	3.80E-04	3.39E-05	A	8.28E-04	B	3.00E-03	B	6.80E-02	C	3.80E-04	E
Mercury	2.60E-04	2.32E-05	-	4.14E-04	B	1.13E-04	B	-	-	2.60E-04	E
Nickel	2.10E-03	1.87E-04	A	4.14E-04	B	8.45E-02	B	1.60E-01	C	2.10E-03	E
Selenium	2.40E-05	2.14E-06	A	2.07E-03	B	6.83E-04	B	-	-	2.40E-05	E
Phosphorus	-	-	-	-	-	9.46E-03	B	3.60E-02	C	-	-
PCBs	-	-	-	-	-	-	-	7.35E-03	D	-	-
Phenol	-	-	-	-	-	-	-	2.40E-03	C	0.00E+00	-
Dichlorobenzene	1.20E-03	1.07E-04	A	-	-	-	-	8.00E-07	C	1.20E-03	-
Naphthalene	6.10E-04	5.44E-05	A	1.13E-03	B	1.13E-03	B	1.30E-02	C	6.10E-04	E
Phenanthrene	1.70E-05	1.52E-06	A	1.05E-05	B	1.05E-05	B	1.10E-02	C	1.70E-05	E
Dibutylphthalate	-	-	-	-	-	-	-	3.40E-05	C	-	-
Butylbenzylphthalate	-	-	-	-	-	-	-	5.10E-04	C	-	-
Bis(2-ethylhexyl)phthalate	-	-	-	-	-	-	-	2.20E-03	C	-	-
Pyrene	5.00E-06	4.46E-07	A	4.25E-06	B	4.25E-06	B	7.10E-03	C	5.00E-06	E
Benz(a)anthracene	1.80E-06	1.61E-07	A	4.01E-06	B	4.01E-06	B	4.00E-03	C	1.80E-06	E
Benzo(a)pyrene	1.20E-06	1.07E-07	A	-	-	-	-	4.00E-03	C	1.20E-06	E
Formaldehyde	7.50E-02	6.69E-03	A	6.10E-02	B	6.10E-02	B	-	-	7.50E-02	E
POM	-	-	-	3.30E-03	B	1.30E-03	B	-	-	-	-
Benzene	2.10E-03	1.87E-04	A	2.14E-04	B	2.14E-04	B	-	-	2.10E-03	E
Ethylbenzene	-	-	-	6.36E-05	B	6.36E-05	B	-	-	-	-
1,1,1-Trichloroethane	-	-	-	2.36E-04	B	2.36E-04	B	-	-	-	-
Toluene	3.40E-03	3.03E-04	A	6.20E-03	B	6.20E-03	B	-	-	3.40E-03	E
o-Xylene	-	-	-	1.09E-04	B	1.09E-04	B	-	-	-	-
Acenaphthene	1.80E-06	1.61E-07	A	2.11E-05	B	2.11E-05	B	-	-	1.80E-06	E
Acenaphthylene	1.80E-06	1.61E-07	A	2.53E-07	B	2.53E-07	B	-	-	1.80E-06	E
Anthracene	2.40E-06	2.14E-07	A	1.22E-06	B	1.22E-06	B	-	-	2.40E-06	E
Benzo(b,k)fluoranthene	-	-	-	1.48E-06	B	1.48E-06	B	-	-	-	-
Benzo(b)fluoranthene	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
Benzo(k)fluoranthene	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
Benzo(g,h,i)perylene	1.20E-06	1.07E-07	A	2.26E-06	B	2.26E-06	B	-	-	1.20E-06	E
Chrysene	1.80E-06	1.61E-07	A	2.38E-06	B	2.38E-06	B	-	-	1.80E-06	E
Dibenzo(a,h)anthracene	1.20E-06	1.07E-07	A	1.67E-06	B	1.67E-06	B	-	-	1.20E-06	E
Fluoranthene	3.00E-06	2.68E-07	A	4.84E-06	B	4.84E-06	B	-	-	3.00E-06	E
Fluorene	2.80E-06	2.50E-07	A	4.47E-06	B	4.47E-06	B	-	-	2.80E-06	E
Indeno(1,2,3-cd)pyrene	1.80E-06	1.61E-07	A	2.14E-06	B	2.14E-06	B	-	-	1.80E-06	E
Hexane	1.8	1.61E-01	A	-	-	-	-	-	-	1.80E+00	E
2-Methylnaphthalene ^B	2.40E-05	2.14E-06	A	-	-	-	-	-	-	2.40E-05	E
3-Methylchloranthrene ^B	1.80E-06	1.61E-07	A	-	-	-	-	-	-	1.80E-06	E
12-Dimethylbenz(a)anthracene	1.60E-05	1.43E-06	A	-	-	-	-	-	-	1.60E-05	E

A. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Tables 1.4-3 and 1.4-4. Propane emission factors determined by converting natural gas emission factors from a lb/MMSCF natural gas to a lb/1,000 gal propane basis.

B. U.S. EPA, AP-42 Section 1.3 - Fuel Oil Combustion (May 2010), Tables 1.3-8, 1.3-9, 1.3-10 and 1.3-11. Sample calculations are included below for representative factors that were calculated. Emission factors are assumed to be the same for distillates, No. 2 Fuel Oil, and diesel. When emission factors for No. 2 fuel oil were not available, assumed equal to emission factors for Residual Oil.

C. U.S. EPA, AP-42 Section 1.11 - Waste Oil Combustion (October 1996), Tables 1.11-4 and 1.11-5. Emission factors for Residual Fuel oil used in cases where emission factors for Waste Oil were not available.

D. Maximum value of pollutant concentration from monthly fuel delivery chemical analysis of Recycled Oil. Estimated emission factor based on conservative assumption that all of the pollutant in the fuel is emitted.

E. U.S. EPA, AP-42 Section 1.4 - Natural Gas Combustion (July 1998), Table 1.4-3 and 4.

Control Factors

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Control Method ^{A, B, C, D}	Control Efficiency (%)	Control Factor (1 - Control Efficiency)
None	0%	1
Partial Enclosure (skirt)	85%	0.15
Full Enclosure (boot)	90%	0.1
Enclosed by Building	90%	0.1
Wet Material	50%	0.5
Water Spray	70%	0.3
Chemicals/Foam	80%	0.2
Washed Sand/Gravel	95%	0.05
Washed Sand/Gravel With Water Spray	98.5%	0.015
Saturated Material (No Visible Emissions)	99%	0.01
Fabric Filter - Partial Enclosure	89.9%	0.1009
Fabric Filter - No Enclosure	74.9%	0.25075
Wet Scrubber	80%	0.2
Fabric Filter	99.9%	0.001

A. Control efficiency for all control methods except saturated material and fabric filters from TCEQ Air Permits Division, Rock Crusher Emission Calculations spreadsheet, https://www.tceq.texas.gov/permitting/air/guidance/newsourcereview/rocks/nsr_fac_rock.html, Downloaded on January 5, 2015.

- Wet control methods (i.e., water, chemicals, saturated material, etc.) are to be applied to dry control factors.

B. Control efficiency for saturated material from TCEQ Air Permits Division, Rock Crushing Plants, Draft RG 058 (February 2002), Table 7, in a note that states "A 99% control efficiency may be allowed when a facility (emission point) operates under saturated conditions with no visible emissions."

C. Control efficiency for fabric filters from typical expected efficiency.

D. Efficiencies for fabric filter controls with partial enclosures and no enclosures and wet scrubber from engineering estimates of expected capture efficiencies.

Emission Factors for Tanks

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Pollutants	Emission Factors (lb/gallon)
	Tank
Benzene	8.47E-07
Ethylbenzene	1.21E-06
n-Hexane	1.73E-07
Toluene	9.56E-06
VOC	3.03E-05

A. Based on TankESP run assuming generic tank attributes.

Material Transfer, Screening, and Crushing Emissions

Company Name: U.S. Silica
 Site Name: Berkeley Springs Plant
 Project: Potential to Emit Calculations
 Annual Hours of Operation: 8760

Title / ID	Source Description	Activity	Control Method	Control Factor ^A	Potential	Emission Factor ^B (lb/ton)	PM ₁₀	PM _{2.5}	PM ₁₀	Emission Rate ^C (tpy)	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}	
					(ton/year)	PM ₁₀													PM _{2.5}
VBFD1	Primary Crushing	Truck Unloading - Fragmented Stone	None		87,700.000	0.00003	0.00002	0.1489	0.0701	0.1016	0.00004	0.00001	0.00002	0.148920	0.070080	0.101612			
CHUSH2	Primary Crushing	Primary Crushing (Jaw) - Dry	Fabric Filter - No Enclosure	0.25075	7,068.000	0.00070	0.00033	0.00050	0.1540	0.2899	0.4933	0.00070	0.00033	0.00050	0.154040	0.289947	0.493306		
CONV1	Primary Crushing	Conveyor Transfer - Dry	Fabric Filter	0.001	7,068.000	0.00030	0.00010	0.00017	0.15408	0.0006	0.00006	0.00030	0.00010	0.00017	0.154110	0.000597	0.000112		
CONV2	Primary Crushing	Conveyor Transfer - Dry	None		7,068.000	0.00300	0.00110	0.00017	0.15405	0.0039	0.0006	0.00300	0.00110	0.00017	0.154167	0.003854	0.000584		
CONV1	Primary Crushing	Conveyor Transfer - Dry	None		7,068.000	0.00300	0.00110	0.00017	10.1210	3.8544	5.8377	0.00300	0.00110	0.00017	10.512000	3.854400	5.836666		
VBFD2	Secondary Crushing	Conveyor Transfer - Dry	Partial Enclosure (skin)	0.15	7,068.000	0.00100	0.00017	0.15408	0.5782	0.8776	0.8500	0.00100	0.00017	0.154167	0.578200	0.877600	0.850000		
CONV4	Secondary Crushing	Conveyor Transfer - Dry	Partial Enclosure (skin)	0.15	3,504.000	0.00300	0.00110	0.00017	0.7884	0.2891	0.4348	0.00300	0.00110	0.00017	0.788400	0.289100	0.434775		
CONV2	Secondary Crushing	Conveyor Transfer - Dry	Full Enclosure (boot)		3,504.000	0.00300	0.00110	0.00017	0.2526	0.1927	0.2932	0.00300	0.00110	0.00017	0.252600	0.192720	0.293200		
CRUSH3	Secondary Crushing	Secondary Crushing (All) - Dry	Wet Scrubber	0.2	3,504.000	0.00504	0.00240	0.00033	1.7560	0.8410	1.2723	0.00504	0.00240	0.00033	1.760516	0.840450	1.273450		
CONV7	Secondary Crushing	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	3,504.000	0.00300	0.00110	0.00017	0.5256	0.1927	0.2932	0.00300	0.00110	0.00017	0.525600	0.192720	0.293183		
CONV2	Secondary Crushing	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	3,504.000	0.00300	0.00110	0.00017	0.2526	0.1927	0.2932	0.00300	0.00110	0.00017	0.252600	0.192720	0.293183		
F1 Stone Tank	Storage Structures	Conveyor Transfer - Dry	Enclosed by Building	0.1	3,504.000	0.00300	0.00110	0.00017	0.2526	0.1927	0.2932	0.00300	0.00110	0.00017	0.252600	0.192720	0.293183		
CONV8	Secondary Crushing	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	3,504.000	0.00300	0.00110	0.00017	0.5256	0.1927	0.2932	0.00300	0.00110	0.00017	0.525600	0.192720	0.293183		
F2 Stone Tank	Storage Structures	Conveyor Transfer - Dry	Enclosed by Building	0.1	3,504.000	0.00300	0.00110	0.00017	0.2526	0.1927	0.2932	0.00300	0.00110	0.00017	0.252600	0.192720	0.293183		
CONV12	Wet Processing Plant	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	1,752.000	0.00300	0.00110	0.00017	0.2628	0.0964	0.1446	0.00300	0.00110	0.00017	0.262800	0.096360	0.144592		
CONV13	Wet Processing Plant	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	1,752.000	0.00300	0.00110	0.00017	0.2628	0.0964	0.1446	0.00300	0.00110	0.00017	0.262800	0.096360	0.144592		
CONV14	Wet Processing Plant	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	1,752.000	0.00300	0.00110	0.00017	0.2628	0.0964	0.1446	0.00300	0.00110	0.00017	0.262800	0.096360	0.144592		
MILL1	Wet Processing Plant	Fines Crushing (All) - Wet Suppression	Full Enclosure (boot)	0.1	1,752.000	0.00300	0.00120	0.00070	0.2628	0.1051	0.0961	0.00300	0.00120	0.00070	0.262800	0.105120	0.096132		
CONV15	Wet Processing Plant	Wet Processing Plant - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	1,134.000	0.00014	0.00005	0.00013	0.0009	0.0003	0.0001	0.00014	0.00005	0.00013	0.000920	0.000312	0.000120		
SCREEN1	Screening (All) - Wet Suppression	Screening (All) - Wet Suppression	Saturated Material (No Visible Emissions)	0.1	1,752.000	0.00220	0.00074	0.00050	0.1927	0.0648	0.0944	0.00220	0.00074	0.00050	0.192720	0.064824	0.094380		
CLASS48.1	Wet Processing Plant	Screening (All) - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	1,752.000	0.00220	0.00074	0.00050	0.0193	0.0065	0.0004	0.00220	0.00074	0.00050	0.019322	0.006548	0.000438		
FERR07	Wet Processing Plant	Screening (All) - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	1,752.000	0.00220	0.00074	0.00050	0.0193	0.0065	0.0004	0.00220	0.00074	0.00050	0.019322	0.006548	0.000438		
SCREEN1	Screening (All) - Wet Suppression	Screening (All) - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	1,491.600	0.00220	0.00074	0.00050	0.0154	0.0052	0.0004	0.00220	0.00074	0.00050	0.015418	0.005386	0.000350		
TANK2	Wet Processing Plant	Conveyor Transfer - Wet Suppression	None		1,752.000	0.00014	0.00005	0.00013	0.1226	0.0403	0.0114	0.00014	0.00005	0.00013	0.122640	0.040296	0.011388		
PIPE1	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Saturated Material (No Visible Emissions)	0.1	1,752.000	0.00014	0.00005	0.00013	0.0012	0.0004	0.0001	0.00014	0.00005	0.00013	0.001226	0.000403	0.000114		
F1E1E1 - WEISES	Screening (All) - Wet Suppression	Screening (All) - Wet Suppression	Full Enclosure (boot)	0.1	0.10020	0.00220	0.00074	0.00050	0.1927	0.0648	0.0944	0.00220	0.00074	0.00050	0.192720	0.064824	0.094380		
CONV17	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Full Enclosure (boot)	0.1	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
CONV18	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	1,752.000	0.00014	0.00005	0.00013	0.0012	0.0004	0.0001	0.00014	0.00005	0.00013	0.001226	0.000403	0.000114		
CONV19	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Full Enclosure (boot)	0.1	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
CONV21	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Enclosed by Building	0.1	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
CONV22	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Partial Enclosure (skin)	0.15	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
CONV23	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Partial Enclosure (skin)	0.15	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
CONV24	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Full Enclosure (boot)	0.1	1,752.000	0.00014	0.00005	0.00013	0.0123	0.0040	0.0011	0.00014	0.00005	0.00013	0.012364	0.004038	0.001139		
VBFD4	Wet Processing Plant	Conveyor Transfer - Wet Suppression	None		1,752.000	0.00014	0.00005	0.00013	0.1226	0.0403	0.0114	0.00014	0.00005	0.00013	0.122640	0.040296	0.011388		
CONV25	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Partial Enclosure (skin)	0.15	0.00014	0.00014	0.00005	0.00013	0.1226	0.0403	0.0114	0.00014	0.00005	0.00013	0.122640	0.040296	0.011388		
CONV26	Wet Processing Plant	Conveyor Transfer - Wet Suppression	Full Enclosure (boot)	0.1	0.00014	0.00014	0.00005	0.00013	0.1226	0.0403	0.0114	0.00014	0.00005	0.00013	0.122640	0.040296	0.011388		
DREX1 #1 (3a)	Wet Processing Plant	Conveyor Transfer - Dry	Wet Scrubber		1,752.000	0.00300	0.00110	0.00017	0.5256	0.1927	0.2932	0.00300	0.00110	0.00017	0.525600	0.192720	0.293183		
SCREEN16	Wet Processing Plant	Screening (All) - Dry	Fabric Filter	0.001	1,752.000	0.00250	0.00080	0.00117	0.0019	0.0076	0.0192	0.00250	0.00080	0.00117	0.002500	0.000800	0.001171		
CONV48	Wet Processing Plant	Conveyor Transfer - Dry	Fabric Filter	0.001	0.00300	0.00300	0.00110	0.00017	0.0029	0.0001	0.0001	0.00300	0.00110	0.00017	0.002920	0.000100	0.000100		
PUMP5	Wet Processing Plant	Conveyor Transfer - Dry	Full Enclosure (boot)	0.1	438.000	0.00300	0.00110	0.00017	0.0657	0.0241	0.0336	0.00300	0.00110	0.00017	0.065700	0.024000	0.033648		
MILLS	Wet Processing Plant	Fines Crushing (All) - Dry	Full Enclosure (boot)	0.1	218.000	0.00300	0.00110	0.00017	0.8541	0.2885	0.4947	0.00300	0.00110	0.00017	0.854100	0.288500	0.494744		
CONV49	Wet Processing Plant	Conveyor Transfer - Dry	Saturated Material (No Visible Emissions)	0.01	0.00300	0.00300	0.00110	0.00017	0.0009	0.0003	0.0001	0.00300	0.00110	0.00017	0.000920	0.000312	0.000120		
CYCL08 & CYCL05	Wet Float Plant	Conveyor Transfer - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	219.000	0.00014	0.00005	0.00013	0.0002	0.0001	0.0000	0.00014	0.00005	0.00013	0.000200	0.000100	0.000050		
FERR02	Screening (All) - Wet Suppression	Screening (All) - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	219.000	0.00220	0.00074	0.00050	0.0024	0.0008	0.0001	0.00220	0.00074	0.00050	0.002400	0.000800	0.000100		
CYCL07	Wet Float Plant	Conveyor Transfer - Wet Suppression	Saturated Material (No Visible Emissions)	0.01	219.000	0.00014	0.00005	0.00013	0.0002	0.0001	0.0000	0.00014	0.00005	0.00013	0.000200	0.000100	0.000050		
CLASS5	Wet Float Plant	Screening (All) - Wet Suppression	Enclosed by Building	0.1	219.000	0.00220	0.00074	0.00050	0.0024	0.0008	0.0001	0.00220	0.00074	0.00050	0.002400	0.000800	0.000100		
Conditioner	Wet Float Plant	Conveyor Transfer - Wet Suppression	Enclosed by Building	0.1	219.000	0.00014	0.00005	0.00013	0.0015	0.0005	0.0001	0.00014	0.00005	0.00013	0.001500	0.000500	0.000100		
Flotation	Wet Float Plant	Conveyor Transfer - Wet Suppression	Enclosed by Building	0.1	219.000	0.00014	0.00005	0.00013	0.0015	0.0005	0.0001	0.00014	0.00005	0.00013	0.001500	0.000500	0.000100		
Conditioner	Wet Float Plant	Conveyor Transfer - Wet Suppression	Enclosed by Building	0.1	219.000	0.00014	0.00005	0.00013	0.0015	0.0005	0.0001	0.00014	0.00005	0.00013	0.001500	0.000500	0.000100		
Vacuum Table	Wet Float Plant	Conveyor Transfer - Wet Suppression	None		219.000	0.00014	0.00005	0.00013	0.0153	0.0050	0.								

Baghouse Emissions

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Title V ID	Source Description	Process Unit Description	Flowrate (dscfm)	Outlet Grain Loading (gr/dscf)	Annual Hours of Operation (hrs/year)	Emission Rate (tpy) ^{A,B,C}		
						PM	PM ₁₀	PM _{2.5}
Fluid Bed Dryer & Rotary Dryer	Fluid Bed Dryer & Rotary Dryer	Fluid Bed Dryer & Rotary Dryer	--	--	--	95.4800	95.4800	76.3840
Screening and Unground Sanding	Screening and Unground Sanding Processing CF#40	Screening and Unground Sanding Processing CF#40	5,500	0.014	8,760	2.8908	2.8908	2.3126
Screening and Unground Sanding	Screening and Unground Sanding Processing CF#6	Screening and Unground Sanding Processing CF#6	20,000	0.014	8,760	10.5120	10.5120	8.4096
Total						108.8828	108.8828	87.1062

A. Fluid Bed Dryer & Rotary Dryer Emissions based on combined TVOP Limit.

B. PM/PM₁₀/PM_{2.5} Emission Rate (tpy) = Flowrate (acfm) * Outlet Grain Loading (gr/scf) * (1 lb / 7,000 gr) * (1 ton / 2,000 lb) * Annual Hours of Operation (hrs/year) * (60 min / 1 hr)

Source Description Screening and Unground Sanding Processing	5,500 acfm	0.01 gr/dscf	1 lb/7,000 gr	1 ton/2,000 lb	8,760 hrs/year	60 min/1 hr	=	2.8908 tpy
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C. Assuming PM_{2.5} emissions are 80% of PM₁₀ emissions.

Stockpile Emissions

Material Storage Pile Wind Erosion Annual Emissions

Title V ID	Size (acres)	Emission Control Method	Control Efficiency	Days in Reporting Period	Emission Factor ^A			Unit	Emission Rate (tpy)		
					PM	PM ₁₀	PM _{2.5}		PM	PM ₁₀	PM _{2.5}
Golf Sand Stockpile & Float Sand Stockpile	5.63	None	0%	365	698.14	349.07	52.36	lb/acre	1.97	0.98	0.15
Reclaim Stockpile	1.386	Partial Enclosure (skirt)	0%	365	698.14	349.07	52.36	lb/acre	0.48	0.24	0.04
Total Stockpile Erosion Emissions									2.45	1.22	0.18

A. USEPA, 1992 (Fugitive Dust Background and Technical Information Document for Best Available Control Measures, Section 2.3.1.3.3, Wind Emissions from Continuously Active Piles). USEPA, 2006 13.2.5 for k factor:
 $EF \text{ (lb/day/acre)} = k \times 1.7 \times (s/1.5) \times ((365 - p)/235) \times (f/15) \times (1 - \% \text{ Control Efficiency})$

B. Total PM assumed to be equal to PM < 30 μm

C. Total days of precipitation greater than or equal to 0.01 inch from U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Figure 13.2.2-1

Days of precipitation greater than or equal to 0.01 inch (p)	102
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D. Time (%) that unobstructed wind speed exceeds 5.4 m/s at mean pile height from climatological data at Hagerstown, MD from 2012-2014

Time (%) that unobstructed wind speed exceeds 5.4 m/s at mean pile height (f)	7.8
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E. Silt content from U.S. EPA, AP-42 Section 13.2.4 - Aggregate Handling and Storage Piles (November 2006), Table 12.2.4-1:

Silt Content (%), (s)	2.9
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F. Particle Size multiplier from U.S. EPA, AP-42 Section 13.2.5 - Industrial Wind Erosion (November 2006), Table after Equation 2

- Particle Size multiplier (k)
- 1 (for PM < 30 μm)
- 0.5 (for PM < 10 μm)
- 0.075 (for PM < 2.5 μm)

Blasting Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Factor (lb/blast)		
PM	PM ₁₀	PM _{2.5}
6.47	3.3654	0.1942

Title V ID	Area Removed per Blast	Number of Blasts per Year	Control Method	Control Factor ^A	PM Emission Factor (lb/blast) ^B	Emission Rate (tpy) ^{C, D}		
						PM	PM ₁₀	PM _{2.5}
Quarry	5978.823529	51	None	1	6.47	0.1650	0.0858	0.0050
Total						0.1650	0.0858	0.0050

A. Control factors from *Control Factors* table.

B. U.S. EPA, AP-42 Section 11.9 Western Surface Coal Mining (October 1998), Table 11.9-1.

C. PM Emission Rate (tpy) = (PM Emission Factor (lbs PM per blast))*(Number of blasts per year)*(1 ton/2,000 lbs.)

$$\text{Quarry PM emission Rate (tpy)} = \frac{6.472 \text{ lb PM}}{\text{blast}} \times 51.0 \text{ blasts} \times 1 \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 0.165 \text{ tpy}$$

D. PM10 and PM2.5 emissions estimated using scaling factors from U.S. EPA, AP-42 Section 11.9 Western Surface Coal Mining (October 1998), Table 11.9-1.

Scaling factor for PM ₁₀	0.52
Scaling factor for PM _{2.5}	0.03

Unpaved Roads Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Mean Vehicle Weight

Vehicle Type	Product Handled	Weight Empty (tons)	Weight Full (tons)	Mean Vehicle Weight ^A (tons)
Haul Trucks/Trucks	Quarried material	68	157.5	112.75

A. Mean Vehicle Weight (tons) = (Weight Full (tons) - Weight Empty (tons))/2

Vehicle Mile Traveled

Emission Unit ID	Source Description	Trip Description	Vehicle Type	Product Handled	Annual Throughput (tons/year)	Roundtrip Length (miles/trip)	Number of Trips ^A (trips/year)	Vehicle Mile Traveled ^B (VMT/year)
Roads	Facility Roadways	Unpaved Haul Roads	Haul Trucks/Trucks	Quarried material	8,760,000	2.00	77,694	155,388
Roads	Facility Roadways	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	8,760,000	1.00	77,694	77,694
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	Haul Trucks/Trucks	Quarried material	4,380,000	0.40	38,847	15,539

A. Number of Trips (trips/year) = Annual Throughput (tons/year) / (Mean Vehicle Weight (tons))

$$\text{Unpaved Haul Roads Number of Trips (trips/year)} = \frac{8,760,000 \text{ tons}}{\text{year}} \div \frac{1}{112.75 \text{ tons}} = 77,694 \text{ trips/year}$$

B. Vehicle Mile Traveled (VMT/year) = Roundtrip Length (miles/trip) * Number of Trips (trips/year)

$$\text{Unpaved Haul Roads Vehicle Mile Traveled (VMT/year)} = \frac{2.00 \text{ miles}}{\text{trip}} \times \frac{77,694 \text{ trips}}{\text{year}} = 155,388 \text{ VMT/year}$$

Unpaved Roads Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Calculations

Emission Unit ID	Source Description	Trip Description	Emission Factor ^A (lb/VMT)			Emission Rate ^B (tpy)		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
Roads	Facility Roadways	Unpaved Haul Roads	8.89	2.27	0.23	207.2703	52.8256	5.2826
Roads	Facility Roadways	Unpaved Plant Traffic	8.89	2.27	0.23	103.6351	26.4128	2.6413
Roads	Facility Roadways - Limestone	Unpaved Plant Traffic	8.89	2.27	0.23	20.7270	5.2826	0.5283
Total						331.6324	84.5209	8.4521

A. U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Equations 1a and 2.

Emission Factor (lb/VMT) = (Particle Size Multiplier (lb/VMT) * (Surface Material Silt Content (%) / 12)^a * (Mean Vehicle Weight (tons) / 3)^b) * ((365 - P)/365)

$$\text{Source Description Facility Roadways PM Emission Factor (lb/VMT)} = \frac{4.9 \text{ lb}}{\text{VMT}} \left(\frac{4.8 / 100}{12} \right)^{0.7} * \left(\frac{112.75}{3} \right)^{0.45} * \frac{(365 - 119)}{365} = 8.89 \text{ lb/VMT}$$

Parameter	Value	Reference
PM Particle Size Multiplier (lb/VMT)	4.9	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Table 13.2.2-2.
PM ₁₀ Particle Size Multiplier (lb /VMT)	1.5	
PM _{2.5} Particle Size Multiplier (lb/VMT)	0.15	
PM Empirical Constant a	0.7	
PM ₁₀ Empirical Constant a	0.9	
PM _{2.5} Empirical Constant a	0.9	
PM Empirical Constant b	0.45	
PM ₁₀ Empirical Constant b	0.45	
PM _{2.5} Empirical Constant b	0.45	
Surface Material Silt Content (%)	4.8	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Table 13.2.2-1.
P (Number of days with ≥ 0.01" precipitation in a year)	119	U.S. EPA, AP-42 Section 13.2.2 - Unpaved Roads (November 2006), Figure 13.2.2-1.
Control Factor	0.3	Water Spray

B. Emission Rate (tpy) = Emission Factor (lb/VMT) * Vehicle Mile Traveled (VMT/year) * (1 ton / 2,000 lb) * (Control Factor)

$$\text{Source Description Facility Roadways PM Emission Rate (tpy)} = \frac{8.89 \text{ lb}}{\text{VMT}} \left| \frac{77,694 \text{ VMT}}{\text{year}} \right| \left| \frac{1 \text{ ton}}{2,000 \text{ lb}} \right| \left| 0.3 \right| = 207.2703 \text{ tpy}$$

Permitted Limit Emissions

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit ID	Emission Factor			Input Data		Emission
	Value	Units	Pollutant	Value	Units	Rate (tpy) ^A
Material Transfer/Conveying	1.00	lb/hr	PM	8,760	hrs/year	4.3800
Material Transfer/Conveying	1.00	lb/hr	PM10	8,760	hrs/year	4.3800
Material Transfer/Conveying	0.80	lb/hr	PM2.5	8,760	hrs/year	3.5040
Screening	0.69	lb/hr	PM	8,760	hrs/year	3.0003
Screening	0.69	lb/hr	PM10	8,760	hrs/year	3.0003
Screening	0.55	lb/hr	PM2.5	8,760	hrs/year	2.4002
Bulk Load and BFS Bagger	0.69	lb/hr	PM	8,760	hrs/year	3.0003
Bulk Load and BFS Bagger	0.69	lb/hr	PM10	8,760	hrs/year	3.0003
Bulk Load and BFS Bagger	0.55	lb/hr	PM2.5	8,760	hrs/year	2.4002
Bulk Bagger	0.10	lb/hr	PM	8,760	hrs/year	0.4380
Bulk Bagger	0.10	lb/hr	PM10	8,760	hrs/year	0.4380
Bulk Bagger	0.08	lb/hr	PM2.5	8,760	hrs/year	0.3504
#6 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#6 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#6 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#7/#8 Silo	0.70	lb/hr	PM	8,760	hrs/year	3.0660
#7/#8 Silo	0.70	lb/hr	PM10	8,760	hrs/year	3.0660
#7/#8 Silo	0.56	lb/hr	PM2.5	8,760	hrs/year	2.4528
#5 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#5 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#5 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#4 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#4 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#4 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#3 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#3 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#3 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#2 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#2 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#2 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752
#1 Silo	0.05	lb/hr	PM	8,760	hrs/year	0.2190
#1 Silo	0.05	lb/hr	PM10	8,760	hrs/year	0.2190
#1 Silo	0.04	lb/hr	PM2.5	8,760	hrs/year	0.1752

A. Emission Rate (tpy) = Emission Factor (lb/hr) * Input Data (hrs/year) * (1 ton / 2,000 lb)

$$\text{Material Transfer/Conveying PM Emission Rate (tpy)} = \frac{1.00 \text{ lb/hr PM} \times 8,760 \text{ hrs/year}}{2,000 \text{ lb}} = 4.38 \text{ tpy}$$

Combustion Emissions (Total)

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Factor ^{A,C}													Value	
				Value	Unit	PM (filt)	PM ₁₀ (filt)	PM _{2.5} (filt)	PM (con)	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead		
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	17.005	14.6985	9.5735	1.5	55	5	235.5	24783	0.99	0.198	0.28	0.8	0.0015	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0	0	0	1.5	19	5	220.5	23117.6	0.9372	0.18744	0.22	0.8	0.10148	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	0.2	0.2	0.2	0.5	19	3.2	0.054	12586.57	0.6006	0.12012	0.3	0.285	0	lb/1,000 gal	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	2	1	0.25	1.3	20	5	28.4	22454.26	0.9108	0.18216	0.2	0.8	0.00126	lb/1,000 gal	
Dryer #1	Dry Sand Processing	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	609.76	million scf/year	1.9	1.9	1.9	5.7	100	84	0.6	120018.5	2.26194	0.22619	5.5	0.49	0.0005	lb/million scf	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	0.2	0.2	0.2	0.5	19	3.2	0.054	12586.57	0.6006	0.12012	0.3	0.285	0	lb/1,000 gal	
Fluid Bed Dryer Total																				
Fluid Rotary Dryer Total																				

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer -
Propane Combustion NOx Emission Rate

$$\text{(tpy)} = \frac{19 \text{ lb/1,000 gal} \times 6,797.38 \text{ 1,000 gal/year}}{2,000 \text{ lb}} = 64.5751 \text{ tpy}$$

C. PM, PM₁₀ and PM_{2.5} emissions from recycled oil combustion on the Fluid Bed Dryer and propane combustion on the Rotary Dryer have been conservatively accounted for in calculations from stack testing done in December, 2012. (See Baghouse tab).

Combustion Emissions (Total)

Company Name: U.S. Silica

Site Name: Berkeley Springs Plant

Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Rate (tpy) ^B												
				Value	Unit	PM (filt)	PM ₁₀ (filt)	PM _{2.5} (filt)	PM (con)	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	35.25	30.47	19.85	3.11	114.03	10.37	488.24	51380.12	2.05	0.41	0.58	1.66	0.00
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0.00	0.00	0.00	3.11	39.39	10.37	457.14	47927.41	1.94	0.39	0.46	1.66	0.21
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	0.68	0.68	0.68	1.70	64.58	10.88	0.18	42777.84	2.04	0.41	1.02	0.97	0.00
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	4.44	2.22	0.56	2.89	44.43	11.11	63.08	49877.32	2.02	0.40	0.44	1.78	0.00
Dryer #1	Dry Sand Processing	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	609.76	million scf/year	0.58	0.58	0.58	1.74	30.49	25.61	0.18	36591.54	0.69	0.07	1.68	0.15	0.00
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	0.16	0.16	0.16	0.41	15.55	2.62	0.04	10302.83	0.49	0.10	0.25	0.23	0.00
Fluid Bed Dryer Total						35.25	30.47	19.85	3.11	114.03	25.61	488.24	51380.12	2.05	0.41	1.68	1.78	0.21
Fluid Rotary Dryer Total						0.16	0.16	0.16	0.41	15.55	2.62	0.04	10302.83	0.49	0.10	0.25	0.23	0.00

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer -
Propane Combustion NOx Emission Rate

$$(\text{tpy}) = \frac{19 \text{ lb/1,000 gal} \times 6,797.38 \text{ 1,000 gal/year} \times 1 \text{ ton}}{2,000 \text{ lb}}$$

C. PM, PM₁₀ and PM_{2.5} emissions from recycled oil combustion on the Fluid Bed Dryer and propane combustion on the Rotary Dryer have been

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Factor ^A													
				Value	Unit	Antimony	Arsenic	Beryllium	Cadmium	Chloride	Chromium	Cobalt	Manganese	Mercury	Nickel	Selenium	Phosphorus	PCBs	Phenol
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	5.25E-03	1.32E-03	2.78E-05	3.98E-04	3.47E-01	8.45E-04	6.02E-03	3.00E-03	1.13E-04	8.45E-02	6.83E-04	9.46E-03	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	4.50E-03	7.35E-03	1.80E-03	8.82E-03	3.47E-01	1.84E-02	5.70E-03	6.80E-02	-	1.60E-01	-	3.60E-02	7.35E-03	2.40E-03
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year	-	1.78E-05	1.07E-06	9.81E-05	-	1.25E-04	7.49E-06	3.39E-05	2.32E-05	1.87E-04	2.14E-06	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year	-	5.52E-04	4.14E-04	4.14E-04	-	4.14E-04	-	8.28E-04	4.14E-04	4.14E-04	2.07E-03	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	609.76	million scf/year	-	2.00E-04	1.20E-05	1.10E-03	-	1.40E-03	8.40E-05	3.80E-04	2.60E-04	2.10E-03	2.40E-05	-	-	0.00E+00
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year	-	1.78E-05	1.07E-06	9.81E-05	-	1.25E-04	7.49E-06	3.39E-05	2.32E-05	1.87E-04	2.14E-06	-	-	-

Emission Unit	Source Description	Process Unit Description	Fuel Used	Fuel Throughput		Emission Rate (tpy) ^B													
				Value	Unit	Antimony	Arsenic	Beryllium	Cadmium	Chloride	Chromium	Cobalt	Manganese	Mercury	Nickel	Selenium	Phosphorus	PCBs	Phenol
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	4,146.40	1,000 gal/year	0.0109	0.0027	0.0001	0.0008	0.7194	0.0018	0.0125	0.0062	0.0002	0.1752	0.0014	0.0196		
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	4,146.40	1,000 gal/year	0.0093	0.0152	0.0037	0.0183	0.7194	0.0382	0.0118	0.1410		0.3317		0.0746	0.0152	0.0050
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	6,797.38	1,000 gal/year		0.0001	0.0000	0.0003		0.0004	0.0000	0.0001	0.0001	0.0006	0.0000			
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	4,442.57	1,000 gal/year		0.0012	0.0009	0.0009		0.0009		0.0018	0.0009	0.0009	0.0046			
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	609.76	million scf/year		0.0001	0.0000	0.0003		0.0004	0.0000	0.0001	0.0001	0.0006	0.0000			0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1,637.11	1,000 gal/year		0.0000	0.0000	0.0001		0.0001	0.0000	0.0000	0.0000	0.0002	0.0000			
Fluid Bed Dryer Total						0.0109	0.0152	0.0037	0.0183	0.7194	0.0382	0.0125	0.1410	0.0009	0.3317	0.0046	0.07464	0.01524	0.00498
Fluid Rotary Dryer Total							0.0000	0.0000	0.0001		0.0001	0.0000	0.0000	0.0000	0.0002	0.0000			

A. Emission factors from *Emission Factors for Combustion* table for each source.

B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 ton / 2,000 lb)

Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal}}{4,146.4 \text{ 1,000 gal/year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 0.0093 \text{ tpy}$

Combustion Emissions (Total)

Company Name: U.S. Silica
 Site Name: Berkeley Springs Plant
 Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dichlorobenzene	Naphthalene	Phenanthrene	Dibutylphthalate	Butylbenzylphthalate	Bis(2-ethylhexyl)phthalate	Pyrene	Benz(a)anthracene	Benzo(a)pyrene	Formaldehyde	POM	Benzene	Ethylbenzene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	-	1.13E-03	1.05E-05	-	-	-	4.25E-06	4.01E-06	-	6.10E-02	1.30E-03	2.14E-04	6.36E-05
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	8.00E-07	1.30E-02	1.10E-02	3.40E-05	5.10E-04	2.20E-03	7.10E-03	4.00E-03	4.00E-03	-	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	1.07E-04	5.44E-05	1.52E-06	-	-	-	4.46E-07	1.61E-07	1.07E-07	6.69E-03	-	1.87E-04	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	-	1.13E-03	1.05E-05	-	-	-	4.25E-06	4.01E-06	-	6.10E-02	3.30E-03	2.14E-04	6.36E-05
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	1.20E-03	6.10E-04	1.70E-05	-	-	-	5.00E-06	1.80E-06	1.20E-06	7.50E-02	-	2.10E-03	-
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1.07E-04	5.44E-05	1.52E-06	-	-	-	4.46E-07	1.61E-07	1.07E-07	6.69E-03	-	1.87E-04	-

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dichlorobenzene	Naphthalene	Phenanthrene	Dibutylphthalate	Butylbenzylphthalate	Bis(2-ethylhexyl)phthalate	Pyrene	Benz(a)anthracene	Benzo(a)pyrene	Formaldehyde	POM	Benzene	Ethylbenzene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil		0.0023	0.0000				0.0000	0.0000		0.1265	0.0027	0.0004	0.0001
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	0.0000	0.0270	0.0228	0.0001	0.0011	0.0046	0.0147	0.0083	0.0083				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	0.0004	0.0002	0.0000				0.0000	0.0000	0.0000	0.0227		0.0006	
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil		0.0025	0.0000				0.0000	0.0000		0.1355	0.0073	0.0005	0.0001
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Natural Gas Combustion	Natural Gas	0.0004	0.0002	0.0000				0.0000	0.0000	0.0000	0.0229		0.0006	
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	0.0001	0.0000	0.0000				0.0000	0.0000	0.0000	0.0055		0.0002	
				0.00037	0.02695	0.02281	0.00007	0.00106	0.00456	0.01472	0.00829	0.00829	0.13550	0.00733	0.00064	0.00014
				0.00009	0.00004	0.00000				0.00000	0.00000	0.00000	0.00548		0.00015	

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal}}{2,204.62 \text{ lb/t}}$

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	1,1,1-Trichloroethane	Toluene	o-Xylene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b,k)fluoranthene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	2.36E-04	6.20E-03	1.09E-04	2.11E-05	2.53E-07	1.22E-06	1.48E-06	-	-	2.26E-06	2.38E-06
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	-	-	-	-	-	-	-	-	-	-	-
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	-	3.03E-04	-	1.61E-07	1.61E-07	2.14E-07	-	1.61E-07	1.61E-07	1.07E-07	1.61E-07
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	2.36E-04	6.20E-03	1.09E-04	2.11E-05	2.53E-07	1.22E-06	1.48E-06	-	-	2.26E-06	2.38E-06
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	-	3.40E-03	-	1.80E-06	1.80E-06	2.40E-06	-	1.80E-06	1.80E-06	1.20E-06	1.80E-06
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	-	3.03E-04	-	1.61E-07	1.61E-07	2.14E-07	-	1.61E-07	1.61E-07	1.07E-07	1.61E-07

Emission Unit	Source Description	Process Unit Description	Fuel Used	1,1,1-Trichloroethane	Toluene	o-Xylene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b,k)fluoranthene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	0.0005	0.0129	0.0002	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil											
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane		0.0010		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	0.0005	0.0138	0.0002	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas		0.0010		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane		0.0002		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
				0.00052	0.01377	0.00024	0.00005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
					0.00025		0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy) = $\frac{0.0045 \text{ lb/1,000 gal}}{2,204.62} \times 1,000 \text{ gal/year} \times 1 \text{ t/2,204.62 lb}$

Combustion Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Hexane	2-Methylnaphthalene ^B	3-Methylchloranthrene ^B	7,12- Dimethylbenz(a)anthracene ^B	Units
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	1.67E-06	4.84E-06	4.47E-06	2.14E-06	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil	-	-	-	-	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	1.07E-07	2.68E-07	2.50E-07	1.61E-07	1.61E-01	2.14E-06	1.61E-07	1.43E-06	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	1.67E-06	4.84E-06	4.47E-06	2.14E-06	-	-	-	-	lb/1,000 gal
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	1.20E-06	3.00E-06	2.80E-06	1.80E-06	1.80E+00	2.40E-05	1.80E-06	1.60E-05	lb/million scf
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	1.07E-07	2.68E-07	2.50E-07	1.61E-07	1.61E-01	2.14E-06	1.61E-07	1.43E-06	lb/1,000 gal

Emission Unit	Source Description	Process Unit Description	Fuel Used	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Hexane	2-Methylnaphthalene ^B	3-Methylchloranthrene ^B	7,12- Dimethylbenz(a)anthracene ^B
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 6 FO Combustion	No. 6 Fuel Oil	0.0000	0.0000	0.0000	0.0000				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Recycled Oil Combustion	Recycled Oil								
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - Propane Combustion	Propane	0.0000	0.0000	0.0000	0.0000	0.5458	0.0000	0.0000	0.0000
Dryer #1	Wet Processing Plant	Fluid Bed Dryer - No. 2 FO Combustion	No. 2 Fuel Oil	0.0000	0.0000	0.0000	0.0000				
Dryer #1	Wet Processing Plant	Fluid Bed Dryer- Natural Gas Combustion	Natural Gas	0.0000	0.0000	0.0000	0.0000	0.5488	0.0000	0.0000	0.0000
Dryer #2	Wet Float Plant	Float Rotary Dryer - Propane Combustion	Propane	0.0000	0.0000	0.0000	0.0000	0.1315	0.0000	0.0000	0.0000
				0.00000	0.00001	0.00001	0.00000	0.54879	0.00001	0.00000	0.00000
				0.00000	0.00000	0.00000	0.00000	0.13145	0.00000	0.00000	0.00000

A. Emission factors from *Emission Factors for Combustion* table for each source.
 B. Emission Rate (tpy) = Emission Factor (lb/1,000 gal) * Fuel Throughput (1,000 gal/year) * (1 t / 2,204.62 lb)
 Process Unit Description Fluid Bed Dryer - Recycled Oil Combustion Antimony
 Emission Rate (tpy)= 0.0045 lb/1,000 gal

Limestone Emissions (Total)

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Title V ID	Description	EP ID	Emissions ^A					
			Uncontrolled					
			PM		PM-10		PM-2.5	
LB/HR	TPY	LB/HR	TPY	LB/HR	TPY			
STOCK1	Stockpile	FP01	0.007	0.029	0.003	0.014	0.000	0.002
CRUSH1	Primary Crusher	E02	1.100	4.818	0.370	1.621	0.000	0.000
CRUSH2	Secondary cone crusher	E04	1.100	4.818	0.370	1.621	0.000	0.000
SCREN1	scalping screener	E01	1.100	4.818	0.370	1.621	0.000	0.000
SCREN2	screener	E03	1.100	4.818	0.370	1.621	0.000	0.000
SCREN3	screener	E05	1.100	4.818	0.370	1.621	0.000	0.000
TRUCK1	Front end loader feeding scalping screen	TP01	0.008	0.035	0.008	0.035	0.008	0.035
FEEDER1	Screen feeding crusher	TP02	0.070	0.307	0.023	0.101	0.007	0.028
CRUSH1	Crusher onto belt conveyor	TP03	0.070	0.307	0.023	0.101	0.007	0.028
SCREN1	Belt conveyor feeding screener	TP04	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC1	Conveyor from Screener	TP05	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC2	Conveyor from Screener	TP06	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC3	Conveyor from Screener	TP07	0.070	0.307	0.023	0.101	0.007	0.028
STACKBC1	Conveyor belt transfer	TP08	0.070	0.307	0.023	0.101	0.007	0.028
STACKBC2	Conveyor belt transfer	TP09	0.070	0.307	0.023	0.101	0.007	0.028
CRUSH2	Conveyor belt Feeding Crusher	TP10	0.070	0.307	0.023	0.101	0.007	0.028
CRUSHSCR1	Crushing Feeding Screener	TP11	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC4	Conveyor from Screener	TP12	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC5	Conveyor from Screener	TP13	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC6	Conveyor from Screener	TP14	0.070	0.307	0.023	0.101	0.007	0.028
SCRENBC7	Conveyor from Screener	TP15	0.070	0.307	0.023	0.101	0.007	0.028
Total			6.495	28.446	2.183	9.563	0.099	0.436
Annual Operations:		4,380,000		tons				
		8,760		hours				

Limestone	Emission Factors ^A			
	Controlled (Water Sprays)			
	PM	PM10	PM2.5	Units
Secondary Crushing	0.002	0.001	0.000	lb/ton
Screening	0.002	0.001	0.000	lb/ton
Truck Unloading	0.000016	0.000016	0.000016	lb/ton
Transfer - Conveyor	0.00014	0.000046	0.000013	lb/ton
Stockpiles	0.156	0.078	0.012	lb/day

A. Obtained from construction permit application from September 2021.

Tank Emissions

Company Name: U.S. Silica
Site Name: Berkeley Springs Plant
Project: Potential to Emit Calculations

Title V ID	Source Description	Material	Capacity Value (gal)	Emission Factor ^B (lb/gal)				
				Benzene	Ethylbenzene	n-Hexane	Toluene	VOC
Tank No. 1	Diesel Fuel Tank	Diesel	10,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 2	Used Oil Tank at Maintenance garage	Used Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 3	Used Oil Tank at Maintenance garage	Used Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 4	#1 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 5	#2 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 6	#3 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 7	#4 Oil Tank at Maintenance garage	Oil	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 8	Recycled Oil Tank near Float Plant	Recycled Oil	10,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 11	Kerosene Tank at C & R Shop	Kerosene	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 12	Gasoline Tank at Office Building	Gasoline	1,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 13	Lube Oil Tank at Scondary Crusher	Lube Oil	300.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 16	Recycled Oil	Recycled Oil	30,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 17	Recycled Oil	Recycled Oil	30,000.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	Conditioner	275.00	8.47E-07	1.21E-06	1.73E-07	9.56E-06	3.03E-05
Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	Propane	60,000.00	--	--	--	--	--
Tank No. 26	Propane Tank at the Quarry	Propane	2,000.00	--	--	--	--	--
Tank No. 27	Propane Tank at #6 Oil Building	Propane	1,000.00	--	--	--	--	--
Tank No. 28	Two Propane Tanks at the C&R Shop	Propane	1,000.00	--	--	--	--	--
Tank No. 29	Sodium Hydroxide Tank	Sodium Hydroxide	8,200.00	--	--	--	--	--
Tank No. 30	Sulfuric Acid Tank	Sulfuric Acid	6,000.00	--	--	--	--	--
Tank No. 31	Floculent Tank	Floculent	500.00	--	--	--	--	3.03E-05
Tank No. 32	Anti-foam Tank	Anti-foam	2,500.00	--	--	--	--	3.03E-05
Tank No. 33	Promoter Tank	Promoter	12,000.00	--	--	--	--	3.03E-05

Title V ID	Source Description	Material	Throughput Value (gal)	Emission Rate (tpy) ^C				
				Benzene	Ethylbenzene	n-Hexane	Toluene	VOC
Tank No. 1	Diesel Fuel Tank	Diesel	120,000.00	0.0001	0.0001	0.0000	0.0006	0.0018
Tank No. 2	Used Oil Tank at Maintenance garage	Used Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 3	Used Oil Tank at Maintenance garage	Used Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 4	#1 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 5	#2 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 6	#3 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 7	#4 Oil Tank at Maintenance garage	Oil	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 8	Recycled Oil Tank near Float Plant	Recycled Oil	120,000.00	0.0001	0.0001	0.0000	0.0006	0.0018
Tank No. 11	Kerosene Tank at C & R Shop	Kerosene	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 12	Gasoline Tank at Office Building	Gasoline	12,000.00	0.0000	0.0000	0.0000	0.0001	0.0002
Tank No. 13	Lube Oil Tank at Scondary Crusher	Lube Oil	3,600.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 16	Recycled Oil	Recycled Oil	360,000.00	0.0002	0.0002	0.0000	0.0017	0.0055
Tank No. 17	Recycled Oil	Recycled Oil	360,000.00	0.0002	0.0002	0.0000	0.0017	0.0055
Tank No. 24	Petroleum Sulfonate (Conditioner) Tank at Float Plant	Conditioner	3,300.00	0.0000	0.0000	0.0000	0.0000	0.0001
Tank No. 25	Two Propane Tanks at the electric shop 30,000 gallon each	Propane	720,000.00	--	--	--	--	--
Tank No. 26	Propane Tank at the Quarry	Propane	24,000.00	--	--	--	--	--
Tank No. 27	Propane Tank at #6 Oil Building	Propane	12,000.00	--	--	--	--	--
Tank No. 28	Two Propane Tanks at the C&R Shop	Propane	12,000.00	--	--	--	--	--
Tank No. 29	Sodium Hydroxide Tank	Sodium Hydroxide	98,400.00	--	--	--	--	--
Tank No. 30	Sulfuric Acid Tank	Sulfuric Acid	72,000.00	--	--	--	--	--
Tank No. 31	Floculent Tank	Floculent	6,600.00	--	--	--	--	0.0001
Tank No. 32	Anti-foam Tank	Anti-foam	30,000.00	--	--	--	--	0.0005
Tank No. 33	Promoter Tank	Promoter	144,000.00	--	--	--	--	0.0022
Total				0.0004	0.0006	0.0001	0.0048	0.0179

A. Throughput based on 1 turnover per month per tank.
 B. Emission factors from *Emission Factors for Tanks* table for each tank.
 C. Emission Rate (tpy) = Emission Factor (lb/gal) * Fuel Throughput (gal/year) * (1 ton / 2,000 lb)

Tank No. 1 Diesel Fuel Tank Benzene Emission Rate (tpy)=

0.00000085 lb/gal	120,000.0 gal	1 ton	=	0.0001 tpy
		2,000 lb		

Company Name:

U.S. Silica

Site Name:

Berkeley Springs Plant

Project:

Potential to Emit Calculations

Summary of Emissions

Source Type	Annual Emissions (tpy) ^A											
	PM	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	CO ₂	CH ₄	N ₂ O	VOC	NH ₃	Lead
Baghouse Emissions	108.8828	108.8828	87.1062	-	-	-	-	-	-	-	-	-
Fluid Bed Dryer & Rotary Dryer	95.4800	95.4800	76.3840	-	-	-	-	-	-	-	-	-
Screening and Unground Sanding Processing CF#40	2.8908	2.8908	2.3126	-	-	-	-	-	-	-	-	-
Screening and Unground Sanding Processing CF#6	10.5120	10.5120	8.4096	-	-	-	-	-	-	-	-	-
Stockpile Emissions	2.4491	1.2245	0.1837	-	-	-	-	-	-	-	-	-
Blasting Emissions	0.1650	0.0858	0.0050	-	-	-	-	-	-	-	-	-
Unpaved Roads Emissions	331.6324	84.5209	8.4521	-	-	-	-	-	-	-	-	-
Permitted Limit Emissions	15.1986	15.1986	12.1589	-	-	-	-	-	-	-	-	-
Combustion Emissions (Total) ^{B,C}												
Fluid Bed Dryer Combustion Emissions	--	--	--	96.35	13.75	267.00	51380.1156	2.0525	0.4105	1.27	1.7770	0.2104
Fluid Rotary Dryer Combustion Emissions	--	--	--				10302.8330	0.4916	0.0983		0.2337	0.0000
New Limestone System	28.4459	9.5627	0.4358	-	-	-	-	-	-	-	-	-
Material Transfer, Screening, and Crushing Emissions	48.1876	19.7231	5.9534	-	-	-	-	-	-	-	-	-
Tank Emissions	-	-	-	-	-	-	-	-	-	0.0179	-	-
Total	534.9615	239.1984	114.2950	96.3500	13.7500	267.0000	61682.9486	2.5441	0.5088	1.2879	2.0107	0.2104

A. Due to the large number of pollutants, a summary of HAPs emissions from combustion are not presented in this table. Please see table on "EC Combustion-HAPs" and "Tanks" tab for summary of HAP emissions.

B. NOx, CO, SO2, and VOC emissions from combustion sources reference TVOP Emissions Limitations for these sources.

C. Particulate Matter emissions from combustion sources are accounted for in the Fluid Bed Dryer & Rotary Dryer Baghouse Emissions.

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

- Type of NSR Application (check all that apply):
 - Construction
 - Modification
 - Class I Administrative Update
 - Class II Administrative Update
 - Relocation
 - Temporary
 - Permit Determination
- Type of 45CSR30 (TITLE V) Application:
 - Title V Initial
 - Title V Renewal
 - Administrative Amendment**
 - Minor Modification**
 - Significant Modification**
 - Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENT S to the combined NSR/Title V application.**

- Payment Type:
 - Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
 - Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

- If the permit writer has any questions, please contact (all that apply):

Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

Company Contact

- Name:
- Email:
- Phone Number:

Consultant

- Name:
- Email:
- Phone Number:



Roberts, Daniel P <daniel.p.roberts@wv.gov>

WV DAQ Title V Permit Application Status for U.S. Silica Company; Berkley Springs Plant

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov>

Tue, Oct 24, 2023 at 8:42 AM

To: jbish@ussilica.com, DavisBra@ussilica.com, Zayne.Zalich@trinityconsultants.com

Cc: Carrie McCumbers <carrie.mccumbers@wv.gov>, Daniel P Roberts <daniel.p.roberts@wv.gov>

RE: Application Status**U.S. Silica Company****Berkeley Springs Plant****Facility ID No. 065-00001****Application No. R30-06500001-2024**

Dear Mr. Bish,

Your application for a Title V Permit Renewal for U.S. Silica Company's Berkeley Springs Plant was received by this Division on October 23, 2023, and was assigned to Dan Roberts

Should you have any questions, please contact the assigned permit writer, Dan Roberts, at 304-926-0499, extension 41902, or Daniel.P.Roberts@wv.gov.

--

Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57th Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281



Roberts, Daniel P <daniel.p.roberts@wv.gov>

Fwd: US Silica , Berkeley Springs , WV 25411

1 message

Air Quality Permitting, DEP <depairqualitypermitting@wv.gov>

Mon, Oct 23, 2023 at 4:34 PM

To: Stephanie R Mink <stephanie.r.mink@wv.gov>

Cc: Daniel P Roberts <daniel.p.roberts@wv.gov>

Stephanie,

Please assign this renewal to Dan as R30-06500001-2024.

Thanks,
Carrie

----- Forwarded message -----

From: **Davis, Brad** <DavisBra@ussilica.com>

Date: Mon, Oct 23, 2023 at 4:08 PM

Subject: US Silica , Berkeley Springs , WV 25411

To: DEPAirQualityPermitting@wv.gov <DEPAirQualityPermitting@wv.gov>Cc: Smelko, Patrick <smelko@ussilica.com>, Olchawa, David <Olchawa@ussilica.com>, Kuykendall-Clark, Becky <ClarkBe@ussilica.com>, Zayne Zalich <Zayne.Zalich@trinityconsultants.com>, Ian Donaldson <IDonaldson@trinityconsultants.com>

Good Afternoon,

Please find the US Silica Berkeley Springs plant Title V Renewal Application. If you have any questions please reach out to the contact information listed below.

Regards,

Brad Davis

EHS Manager

[2496 Hancock Rd](#)[Berkeley Springs, WV 25411](#)[\(304\) 702-5515](#)DavisBra@ussilica.com**FINAL Title V Permit Renewal Application Compiled 2023 signed.pdf**

6088K

Division of Air Quality Permit Application Submittal

Please find attached a permit application for :

[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only):
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only):

• **Type of NSR Application (check all that apply):**

- Construction
- Modification
- Class I Administrative Update
- Class II Administrative Update
- Relocation
- Temporary
- Permit Determination

• **Type of 45CSR30 (TITLE V) Application:**

- Title V Initial
- Title V Renewal
- Administrative Amendment**
- Minor Modification**
- Significant Modification**
- Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENTS to the combined NSR/Title V application.**

• **Payment Type:**

- Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
- Check (Make checks payable to: WVDEP – Division of Air Quality)

Mail checks to:
WVDEP – DAQ – Permitting
Attn: NSR Permitting Secretary
601 57th Street, SE
Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

• **If the permit writer has any questions, please contact (all that apply):**

Responsible Official/Authorized Representative

- Name:
- Email:
- Phone Number:

Company Contact

- Name:
- Email:
- Phone Number:

Consultant

- Name:
- Email:
- Phone Number:

**TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.</p>	
<input checked="" type="checkbox"/>	Application signed by a Responsible Official as defined in 45CSR§30-2.38 (“ <i>Section 6: Certification of Information</i> ” page signed and dated)
<input checked="" type="checkbox"/>	Table of Contents (should be included, but not required for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input checked="" type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



Berkeley Springs Plant

Title V Permit to Operate Renewal Application
Permit Number: R30-06500001-2019
October 16, 2023

Table of Contents

Introduction

Attachment A - Area Map

Attachment B - Plot Plan

Attachment C - Process Flow Diagrams

Attachment D - Equipment Table

Attachment E - Emission Unit Forms

Attachment F - Schedule Of Compliance Forms

Attachment G - Air Pollution Control Device Forms

Attachment H - Compliance Assurance Monitoring (CAM) Forms

Table 4. Revisions to Attachment G - Air Pollution Control Device Forms

Introduction

U.S. Silica submitted a Title V permit renewal application to the West Virginia Department of Environmental Protection (WVDEP) in August 2018 to fulfill the permit requirements for a major air pollution emission source. The WVDEP issued a Permit to Operate pursuant to Title V of the Clean Air Act on **May 7, 2019** (Permit No. R30-06500001-2019). This permit will expire on May 7, 2024. The WVDEP requires renewal applications for Title V permits to be submitted no earlier than 12 months and no later than 6 months before the expiration date. As such, the facility must submit its renewal application before November 7, 2023. The following document provides the information required for the renewal application. For completeness the following information is submitted:

- A signed copy of the application (at least one must contain the original “Certification” page signed and dated in blue ink).
- Table of Contents.
- Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios.
- Area map showing plant location and plot plan showing buildings and process areas.
- Process flow diagram(s), showing all emission units, control equipment, emission points, and the ir relationships.
- Identification of all applicable requirements with a description of the compliance status and the methods used for demonstrating compliance.
- The facility is in compliance with all applicable requirements; as such, a Schedule of Compliance Form (ATTACHMENT F) is not included.
- A listing of all active permits and consent orders is included in the General Application Forms.
- The facility-wide emissions summary is included in the General Application Forms.
- Identification of Insignificant Activities is included in the General Application Forms.
- ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities.
- ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D). Detailed Facility-wide emission calculations are included as supplement to Attachment E.
- ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D).
- ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G).
- The General Application Forms have been signed by a Responsible Official.
- The facility is not seeking confidential information status for this submittal.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (U.S. Silica Company), 2. Facility Name (Berkeley Springs Plant), 3. DAQ Plant ID No. (065-00001), 4. Federal Employer ID No. (FEIN) (23-0958670), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (78), 9. Governmental Code (Privately owned and operated; 0), 10. Business Confidentiality Claims (No).

11. Mailing Address		
Street or P.O. Box: P.O. Box 187		
City: Berkeley Springs	State: West Virginia	Zip: 25411
Telephone Number: (304) 258-2500	Fax Number: (304) 258-8293	

12. Facility Location					
Street: Route 522 North		City: Berkeley Springs		County: Morgan	
UTM Easting: 739.55	km	UTM Northing: 4393.48	km	Zone: 17 or <input type="checkbox"/> 18	
Directions: Three miles north of Berkeley Springs off of Route 522.					
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input type="checkbox"/> No				If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				If yes, name the affected state (s). Maryland Pennsylvania	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
<small>¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</small>					

13. Contact Information		
Responsible Official: Jason Bish		Title: Vice President of EHS, U.S. Silica Company
Street or P.O. Box: 2496 Hancock Road		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number:	Fax Number: N/A	
E-mail address:		
Environmental Contact: Brad Davis		Title: EHS Manager
Street or P.O. Box: 2496 Hancock Rd		
City: Berkeley Springs	State: WV	Zip: 25411
Tele phone Number: (304) 702-5515	Fax Number: N/A	
E-mail address: DavisBra@ussilica.com		
Application Preparer: S/A		Title: S/A
Company: U.S. Silica Company		
Street or P.O. Box: S/A		
City:	State:	Zip:
Tele phone Number:	Fax Number:	
E-mail address:		

14. Facility Description

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

Process	Products	NAICS	SIC
Industrial Sand Mining and Processing	Silica Sand Products	212322	1446

Provide a general description of operations.

Sandstone is mined and processed into unground, ground and micronized silica sand products. Processes include the following:

- Mining
- Crushing
- Screening
- Drying
- Milling
- Classification
- Limestone System
- Packaging and Bulk Loading

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

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

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

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non-Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
<input type="checkbox"/> Permit Shield

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

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

Permit Shield

20. Facility-Wide Applicable Requirements

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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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)]

R30-06500001-2014 (MM 01 & MM 02) 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 (M VACs) 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]

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 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 45CSR§7-3.2. [45CSR§7-3.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. [45CSR§7-3.7] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.11. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7. [45CSR§7-4.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.12. No person shall circumvent the provisions of this rule by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. [45CSR§7-4.3]

R30-06500001-2014 (MM 01 & MM 02) 3.1.13. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. [45CSR§7-5.1] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

R30-06500001-2014 (MM 01 & MM 02) 3.1.14. The owner or operator of a plant shall maintain particulate matter 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 particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. [45CSR§ 7-5.2] [45CSR13, R13-0715, B.3, R13-2595, B.2, R13-1970, B.2, R13-1917, B.1, R13-2015, B.6, R13-2423, B.1, R13-2299, B.1]

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

Monitoring Requirements

R30-06500001-2014 (MM 01 & MM 02) 3.2.1. Each Process Source Operation (See Note below) with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions using 40 C.F.R. 60 Appendix A, Method 22. If visible emissions from any of the Process Source Operation are observed during these weekly observations, or at any other time, that appear to exceed the allowable visible emission requirement for the Process Source Operation, visible emissions evaluations in accordance with 45CSR7A shall be conducted as soon as practicable, but no later than one month from the time of the observation. A visible emissions evaluation in accordance with 45CSR7A shall not be required under condition Section 3.2.1 if the visible emissions condition is corrected in a timely manner; the Process Source Operation is operating at normal operating conditions; and, the cause and corrective measures taken are recorded. [45CSR§ 30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.2.2. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems monthly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.

Preventive maintenance inspections of potential fugitive dust sources, such as outdoor conveying systems, transfer points, and bulk loadouts will be conducted on a periodic basis by operations personnel. This is in addition to the monthly inspections required above.

Parking lots, roadways, other vehicle travel areas, and storage piles will be regularly observed by trained personnel to determine the need for fugitive dust control. A water truck must be available for control of dust on roadways and parking lots on an as needed basis. The water truck will be included in the facility's preventive maintenance program. Dates of water truck usage will be provided on the Pre-Shift Inspection Reports maintained by the Quarry office.

U.S. Silica shall keep all maintenance and preventive maintenance records via a mainframe computer system. [45CSR§30-5.1.c.]

Note : Process Source operations include the following : Primary Crushing Plant, Secondary Crushing Plant, Wet Processing Plant, Screening and unground sand Processing, Milling, 10/15/30/40 Micron Classification, 5 Micron Classification, Wet Float Plant & Storage Structures.

R30-06500001-2014 (MM 01 & MM 02) 3.2.3. (Note: The following section numbers match those of 40 C.F.R. §64.7)

(b) *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) *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 owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) 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 this part, 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.

(d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator 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.

(2) Determination of whether the owner or operator 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.

(e) *Documentation of need for improved monitoring.* After approval of monitoring under this part, if the owner or operator 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 owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 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.
[40CFR§64.7; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 3.2.4. (Note: The following section numbers match those of 40 C.F.R. §64.8)

§ 64.8 Quality improvement plan (QIP) requirements.

- (a) Based on the results of a determination made under § 64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with § 64.6(c)(3), the part 70 or 71 permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.
- (b) Elements of a QIP:
 - (1) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
 - (2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
 - (i) Improved preventive maintenance practices.
 - (ii) Process operation changes.
 - (iii) Appropriate improvements to control methods.
 - (iv) Other steps appropriate to correct control performance.
 - (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (b)(2)(i) through (iv) of this section).
- (c) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (d) Following implementation of a QIP, upon any subsequent determination pursuant to § 64.7(d)(2) the Administrator or the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (e) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40CFR§64.8; 45CSR§30-5.1.c.]

Note: This requirement is applicable to sections 4, 5 & 6 of this permit.

Testing Requirements

R30-06500001-2014 (MM 01 & MM 02) 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.2. Except as provided in the terms and conditions of specific emission units, the permittee shall conduct stack tests upon request by Director, establish parameter indicator ranges, and furnish the Secretary a written report of the results of such testing and established indicator ranges. The permittee shall use Method 5 or an alternative method approved by the Secretary for such testing. For wet scrubber control devices, parameter indicator ranges shall be established for the water pressure to the control equipment and the pressure loss of the inlet airflow to the scrubber. The permittee shall establish parameter indicator ranges and operate within these ranges to provide a reasonable assurance that the emission unit is in compliance with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of 45CSR7A;
- b. Amount of material processed;
- c. Water pressure to the control equipment; and
- d. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the

control equipment.

These records shall be maintained on site and in accordance with 3.4.2.

[45CSR§30-5.1.c.]

R30-06500001-2014 (MM 01 & MM 02) 3.3.3. 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]

R30-06500001-2014 (MM 01 & MM 02) 3.3.4. 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]

Recordkeeping Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

[45CSR13, R13-2145, 4.4.1.] (SCREN 7-9, 14-15; BE01; BE02; LS01; CF #36; CF #6)

R30-06500001-2014 (MM 01 & MM 02) 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.][45CSR13, R13-0715, A.11; R13-2595, B.9]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.4.4. 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 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.]

Reporting Requirements

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 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

R30-06500001-2014 (MM 01 & MM 02) 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.]

R30-06500001-2014 (MM 01 & MM 02) 3.5.7. Emergencies. For reporting emergency situations, refer to Section 2.17 of this permit.

R30-06500001-2014 (MM 01 & MM 02) 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:

4. 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.

5. 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.

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

7. 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.]

R30-06500001-2014 (MM 01 & MM 02) 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.]

Permit Shield

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

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