Emission Sources - Maximum Allowable Emission Rates

Permit Number 56300

This table lists the maximum allowable Emission Rates and all sources of air contaminants on the applicant's property covered by this permit. The Emission Rates (6) shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in Emission Rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6) (7)	
			lbs/hour	TPY (4)
10E1	Fluid Bed Reactor 51N Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E2	Fluid Bed Reactor 52N Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E3	Fluid Bed Reactor 53N Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E4	Fluid Bed Reactor 54N Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E5	Fluid Bed Reactor 55S Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E6	Fluid Bed Reactor 56S Potline 5 (3 Stacks)	PM	3.78	16.56

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E7	Fluid Bed Reactor 57S Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.47	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
10E8	Fluid Bed Reactor 58S Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37

Emission Sources - Maximum Allowable Emission Rates

10E9	Fluid Bed Reactor 59S Potline 5 (3 Stacks)	PM	3.78	16.56
		PM_{10}	3.78	16.56
		$PM_{2.5}$	2.46	10.78
		NO_x	0.10	0.45
		CO	121.89	533.89
		SO_2	20.36	89.19
		COS	2.12	9.29
		PF	0.18	0.79
		HF	0.08	0.37
F10E-1	Roof Monitor 5-1 Potline 5	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.03
		CO	5.60	24.52
		SO_2	0.94	4.10
		COS	0.10	0.43
		PF	1.94	8.50
		HF	1.71	7.47
F10E-2	Roof Monitor 5-2 Potline 5	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.03
		CO	5.60	24.52
		SO_2	0.94	4.10
		COS	0.10	0.43
		PF	1.94	8.50

Emission Sources - Maximum Allowable Emission Rates

		HF	1.71	7.47
F10E-3	Roof Monitor 5-3 Potline 5	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.03
		CO	5.60	24.52
		SO_2	0.94	4.10
		COS	0.10	0.43
		PF	1.94	8.50
		HF	1.71	7.47
F10E-4	Roof Monitor 5-4 Potline 5	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.03
		CO	5.60	24.52
		SO_2	0.94	4.10
		COS	0.10	0.43
		PF	1.94	8.50
		HF	1.71	7.47
Potline 5 CAP (Includes 4 Roof Monitors and 9 Scrubbers EPNs 10E1 thru 10E9 and F10E-1 thru F10E-4)		PM	59.62	261.12
		PM_{10}	48.86	214.00
		$PM_{2.5}$	29.31	128.40
		SO_2	187.0	819.05
		COS	19.48	85.32
		PF	9.38	41.08
		HF	7.58	33.20

Emission Sources - Maximum Allowable Emission Rates

		NO_x	0.95	4.15
		CO	1119.42	4903.08
10E10	Reacted Alumina Baghouse Stack - Potline 5	PM	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.03	0.10
		PF	<0.01	0.01
10E11	Reacted Alumina Baghouse Stack - Potline 5	PM	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.03	0.10
		PF	<0.01	0.01
10F1	Scrubber 10S13E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F2	Scrubber 10S13W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37

Emission Sources - Maximum Allowable Emission Rates

		PF	1.37	6.00
		HF	0.98	4.29
10F3	Scrubber 10S14E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO^x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F4	Scrubber 10S14W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F5	Scrubber 10S15E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97

Emission Sources - Maximum Allowable Emission Rates

		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F6	Scrubber 10S15W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F7	Scrubber 10S16E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F8	Scrubber 10S16W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18

Emission Sources - Maximum Allowable Emission Rates

		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F9	Scrubber 10S17E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F10	Scrubber 10S17W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F11	Scrubber 10S18E Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40

Emission Sources - Maximum Allowable Emission Rates

		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
10F12	Scrubber 10S18W Stack Potline 6	PM	10.74	47.05
		PM_{10}	7.64	33.45
		$PM_{2.5}$	4.97	21.78
		NO_x	0.09	0.40
		CO	138.17	605.18
		SO_2	13.46	58.97
		COS	1.68	7.37
		PF	1.37	6.00
		HF	0.98	4.29
F10F-1	Roof Monitor 6-1 Potline 6	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.04
		CO	14.39	63.04
		SO_2	1.87	8.19
		COS	0.20	0.85
		PF	1.60	7.01
		HF	2.62	11.48
F10F-2	Roof Monitor 6-2 Potline 6	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84

Emission Sources - Maximum Allowable Emission Rates

		NO_x	0.01	0.04
		CO	14.39	63.04
		SO_2	1.87	8.19
		COS	0.20	0.85
		PF	1.60	7.01
		HF	2.62	11.48
F10F-3	Roof Monitor 6-3 Potline 6	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.04
		CO	14.39	63.04
		SO_2	1.87	8.19
		COS	0.20	0.85
		PF	1.60	7.01
		HF	2.62	11.48
F10F-4	Roof Monitor 6-4 Potline 6	PM	6.40	28.03
		PM_{10}	3.71	16.25
		$PM_{2.5}$	1.79	7.84
		NO_x	0.01	0.04
		CO	14.39	63.04
		SO_2	1.87	8.19
		COS	0.20	0.85
		PF	1.60	7.01
		HF	2.62	11.48
Potline 6 CAP (Includes 4 Roof Monitors and 12 Scrubbers EPNs 10F1 thru 10F12		PM	133.01	582.60
		PM_{10}	91.20	399.48

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	56.89	249.18
		SO_2	142.12	622.48
		COS	17.61	77.13
		PF	20.10	88.04
		HF	20.27	88.80
		NO_x	0.95	4.15
		CO	1439.26	6303.96
10G1	Fluid Bed Reactor 71E Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G2	Fluid Bed Reactor 72E Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
10G3	Fluid Bed Reactor 73E Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G4	Fluid Bed Reactor 74E Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G5	Fluid Bed Reactor 75E Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G6	Fluid Bed Reactor 76E Stack	PM	3.76	16.45

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G7	Fluid Bed Reactor 71W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G8	Fluid Bed Reactor 72W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37

Emission Sources - Maximum Allowable Emission Rates

10G9	Fluid Bed Reactor 73W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G10	Fluid Bed Reactor 74W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
10G11	Fluid Bed Reactor 75W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26

Emission Sources - Maximum Allowable Emission Rates

		HF	0.08	0.37
10G12	Fluid Bed Reactor 76W Stack Potline 7	PM	3.76	16.45
		PM_{10}	3.76	16.45
		$PM_{2.5}$	2.45	10.71
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.06	0.26
		HF	0.08	0.37
F10G 1	Roof Monitor 7-1 Potline 7	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.03
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	3.04	13.32
		HF	2.01	8.81
F10G-2	Roof Monitor 7-2 Potline 7	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.03
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46

Emission Sources - Maximum Allowable Emission Rates

		PF	3.04	13.32
		HF	2.01	8.81
F10G-3	Roof Monitor 7-3 Potline 7	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.74
		NO_x	0.01	0.03
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	3.04	13.32
		HF	2.01	8.81
F10G-4	Roof Monitor 7-4 Potline 7	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.03
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	3.04	13.32
		HF	2.01	8.81
Potline 7 CAP (Includes 4 Roof Monitors and 12 Scrubbers EPNs 10G1 thru 10G12 and F10G-1 thru F10G-4)		PM	81.75	358.05
		PM_{10}	66.33	290.53
		$PM_{2.5}$	39.61	173.50
		SO_2	267.80	1172.94
		COS	27.90	122.18
		PF	12.88	56.41

Emission Sources - Maximum Allowable Emission Rates

		HF	9.05	39.65
		NO_x	1.36	5.94
		CO	1603.10	7021.56
10G13	Reacted Alumina Baghouse Stack - Potline 7	PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.02	0.08
		PF	<0.01	<0.01
10G14	Reacted Alumina Baghouse Stack - Potline 7	PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.02	0.08
		PF	<0.01	<0.01
10H1	Fluid Bed Reactor 81E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H2	Fluid Bed Reactor 82E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28

Emission Sources - Maximum Allowable Emission Rates

		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H3	Fluid Bed Reactor 83E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H4	Fluid Bed Reactor 84E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H5	Fluid Bed Reactor 85E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35

Emission Sources - Maximum Allowable Emission Rates

		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H6	Fluid Bed Reactor 86E Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H7	Fluid Bed Reactor 81W Potline 8 (3 Stacks)	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H8	Fluid Bed Reactor 82W (3 Stacks) Potline 8	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49

Emission Sources - Maximum Allowable Emission Rates

		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H9	Fluid Bed Reactor 83W (3 Stacks) Potline 8	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H10	Fluid Bed Reactor 84W (3 Stacks) Potline 8	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H11	Fluid Bed Reactor 85W (3 Stacks) Potline 8	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45

Emission Sources - Maximum Allowable Emission Rates

		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
10H12	Fluid Bed Reactor 86W (3 Stacks) Potline 8	PM	3.31	14.52
		PM_{10}	3.31	14.52
		$PM_{2.5}$	2.16	9.45
		NO_x	0.11	0.49
		CO	131.59	576.35
		SO_2	21.98	96.28
		COS	2.29	10.03
		PF	0.07	0.31
		HF	0.18	0.78
F10H-1	Roof Monitor 8-1 Potline 8	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.02
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	2.37	10.38
		HF	1.72	7.52
F10H-2	Roof Monitor 8-2 Potline 8	PM	9.17	40.16
		PM_{10}	5.32	23.28

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.02
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	2.37	10.38
		HF	1.72	7.52
F10H-3	Roof Monitor 8-3 Potline 8	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.02
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	2.37	10.38
		HF	1.72	7.52
F10H-4	Roof Monitor 8-4 Potline 8	PM	9.17	40.16
		PM_{10}	5.32	23.28
		$PM_{2.5}$	2.57	11.24
		NO_x	0.01	0.02
		CO	6.01	26.33
		SO_2	1.00	4.40
		COS	0.11	0.46
		PF	2.37	10.38
		HF	1.72	7.52
Potline 8 CAP		PM	76.46	334.89

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	61.04	267.36
		$PM_{2.5}$	36.17	158.41
		SO_2	267.80	1172.94
		COS	27.90	122.18
		PF	10.32	45.20
		HF	9.01	39.47
		NO_x	1.36	5.94
		CO	1603.10	7021.56
10H13	Reacted Alumina Baghouse Stack Potline 8	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.05	0.21
		PF	<0.01	0.08
10H14	Reacted Alumina Baghouse Stack Potline 8	PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.05	0.21
		PF	<0.01	0.08
11A	Lime Storage Baghouse Stack	PM	0.14	0.16
		PM_{10}	0.14	0.16
		$PM_{2.5}$	0.07	0.08
13B	Furnace 5 Stack	PM	5.67	24.84
		PM_{10}	2.84	12.42
		$PM_{2.5}$	2.84	12.42
		NO_x	3.44	7.27
		CO	1.35	5.92
		SO_2	0.01	0.04
		VOC	0.09	0.39

Emission Sources - Maximum Allowable Emission Rates

		F_2	3.35	1.75
		Cl_2	1.10	0.49
		HCl	3.08	13.49
13C	Furnace 6 Stack	PM	5.67	24.84
		PM_{10}	2.84	12.42
		$PM_{2.5}$	2.84	12.42
		NO_x	3.44	7.27
		CO	1.35	5.92
		SO_2	0.96	0.04
		VOC	0.09	0.39
		F_2	3.35	1.75
		Cl_2	1.10	0.49
		HCl	3.08	13.49
13D	Holding Furnace 7 Stack	PM	5.67	24.84
		PM_{10}	2.84	12.42
		$PM_{2.5}$	2.84	12.42
		NO_x	1.68	3.55
		CO	0.66	2.89
		SO_2	0.01	0.03
		VOC	0.04	0.19
		F_2	3.35	1.75
		Cl_2	1.10	0.49
		HCl	3.08	13.49
V13J	Preheat Oven 1 Stack	PM	0.29	1.26
		PM_{10}	0.29	1.26
		$PM_{2.5}$	0.29	1.26

Emission Sources - Maximum Allowable Emission Rates

		NO_x	8.08	17.07
		CO	3.17	13.89
		SO_2	0.02	0.10
		VOC	0.21	0.91
V13K	Preheat Oven 2 Stack	PM	0.29	1.26
		PM_{10}	0.29	1.26
		$PM_{2.5}$	0.29	1.26
		NO_x	8.08	17.07
		CO	3.17	13.89
		SO_2	0.02	0.10
		VOC	0.21	0.91
13IP1	Furnace 1 Stack	PM	0.10	0.43
		PM_{10}	0.10	0.43
		$PM_{2.5}$	0.10	0.43
		NO_x	2.75	5.80
		CO	1.08	4.72
		SO_2	0.01	0.03
		VOC	0.07	0.31
		F_2	3.35	1.75
13IP2	Furnace 2 Stack	PM	0.10	0.43
		PM_{10}	0.10	0.43
		$PM_{2.5}$	0.10	0.43
		NO_x	2.75	5.80
		CO	1.08	4.72
		SO_2	0.01	0.03
		VOC	0.07	0.31

Emission Sources - Maximum Allowable Emission Rates

		F_2	3.35	1.75
2A	Coke Milling, Screening, and Transfer Baghouse Stack	PM	1.90	8.28
		PM_{10}	1.90	8.28
		$PM_{2.5}$	0.99	4.32
2C	Coke Milling, Screening, and Transfer Baghouse Stack	PM	1.02	4.46
		PM_{10}	1.02	4.46
		$PM_{2.5}$	0.53	2.33
		F_2	<0.01	<0.01
2E	Coke Milling, Screening, and Transfer Baghouse Stack	PM	0.12	0.56
		PM_{10}	0.12	0.56
		$PM_{2.5}$	0.06	0.29
2F	Coke Milling, Screening, and Transfer Baghouse Stack	PM	0.60	2.55
		PM_{10}	0.60	2.55
		$PM_{2.5}$	0.31	1.33
2G	Ball Mill CC30 Baghouse Stack	PM	0.38	1.67
		PM_{10}	0.38	1.67
		$PM_{2.5}$	0.20	0.87
2H	Ball Mill CC60 Baghouse Stack	PM	0.07	0.29
		PM_{10}	0.07	0.29
		$PM_{2.5}$	0.04	0.15
9C	Belt Conveyor 42A Baghouse Stack	PM	0.06	0.26
		PM_{10}	0.06	0.26
		$PM_{2.5}$	0.04	0.17
		PF	<0.01	<0.01
9D	Transfer Point 42B Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.08	0.34
		PF	<0.01	<0.01
9E	Transfer Point 42C Baghouse Stack	PM	0.12	0.52
		PM_{10}	0.12	0.52
		$PM_{2.5}$	0.08	0.34
		PF	<0.01	0.01
9G2	Storage Tank 19H Baghouse Stack	PM	0.05	0.21
		PM_{10}	0.05	0.21
		$PM_{2.5}$	0.03	0.14
		PF	<0.01	0.01
9G3	Storage Tank 19W Baghouse Stack	PM	0.08	0.35
		PM_{10}	0.08	0.35
		$PM_{2.5}$	0.05	0.23
		PF	<0.01	0.01
9G3A	Day Tank 19X Baghouse Stack	PM	0.08	0.36
		PM_{10}	0.08	0.36
		$PM_{2.5}$	0.05	0.23
		PF	<0.01	0.01
9G4-1	Reacted Alumina Tank 21R Baghouse Stack	PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.01	0.05
		PF	<0.01	<0.01
9G4-2	Reacted Alumina Tank 21R Baghouse Stack	PM	0.04	0.18
		PM_{10}	0.04	0.18
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

9G5	Storage Tank 129E Baghouse Stack	PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	<0.01
9G6	Day Tank 129G Baghouse Stack	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
		PF	<0.01	<0.01
9G7-1	Alumina Tank 129M Baghouse Stack	PM	0.04	0.19
		PM_{10}	0.14	0.19
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	<0.01
9G7-2	Alumina Tank 129R Baghouse Stack	PM	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.03	0.10
		PF	<0.01	<0.01
9G8	Alumina Tank 129W Baghouse Stack	PM	0.06	0.26
		PM_{10}	0.06	0.26
		$PM_{2.5}$	0.04	0.17
		PF	<0.01	<0.01
9G9	Day Tank 129X Baghouse Stack	PM_0	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	0.01
9G10	Storage Tank 133E Baghouse Stack	PM	0.04	0.15
		PM_{10}	0.04	0.15

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.03	0.10
		PF	<0.01	<0.01
9G11	Day Tank 133G Baghouse Stack	PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	0.01
9G12-1	Storage Tank 133M Baghouse Stack	PM	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.03	0.10
		PF	<0.01	<0.01
9G12-2	Storage Tank 133M Baghouse Stack	PM	0.04	0.18
		PM_{10}	0.04	0.18
		$PM_{2.5}$	0.03	0.12
		PF	<0.01	<0.01
9G13	Storage Tank 133W Baghouse Stack	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.03	0.11
		PF	<0.01	0.01
9G14	Storage Tank 133X Baghouse Stack	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
		PF	<0.01	0.01
9G15-1	Reacted Alumina Tank 133R Baghouse Stack	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.03	0.11
		PF	<0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

9G15-2	Reacted Alumina Tank 133R Baghouse Stack	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.03	0.11
		PF	<0.01	0.01
9G16-1	Reacted Alumina Tank 129R Baghouse Stack	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.03	0.11
		PF	<0.01	0.01
9G16-2	Reacted Alumina Tank 129R Baghouse Stack	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.03	0.11
		PF	<0.01	0.01
9G17	Air Slide 9T21 Baghouse Stack	PM	0.21	0.54
		PM_{10}	0.21	0.54
		$PM_{2.5}$	0.14	0.35
		PF	<0.01	0.01
9G18	Elevator Tower Line 5 Baghouse Stack	PM	0.05	0.22
		PM_{10}	0.05	0.22
		$PM_{2.5}$	0.03	0.14
		PF	0.01	0.01
9G19	41 Lower Conveyor Belt Vent (5)	PM	0.39	1.70
		PM_{10}	0.39	1.70
		$PM_{2.5}$	0.06	0.26
		PF	0.01	0.04
9G20	41 Upper Conveyor Belt Vent (5)	PM	0.08	0.34
		PM_{10}	0.08	0.34

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.01	0.05
		PF	<0.01	0.01
9G25	Potline 1 Ore Fill Station Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.12	0.53
9G26	Potline 2 Ore Fill Station Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.12	0.53
9G27	Potline 3 Ore Fill Station Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.12	0.53
9G28	Potline 4 Ore Fill Station Baghouse Stack	PM	0.19	0.81
		PM_{10}	0.19	0.81
		$PM_{2.5}$	0.12	0.53
9OREVENT	Ore Tank Vents (5)	PM	0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
4A	Steam Boiler No. 1 Stack	PM	0.29	1.26
		PM_{10}	0.29	1.26
		$PM_{2.5}$	0.29	1.26
		NO_x	8.08	17.07
		CO	3.17	13.89
		SO_2	0.02	0.10
		VOC	0.21	0.91
4B	Steam Boiler No. 2 Stack	PM	0.29	1.26
		PM_{10}	0.29	1.26

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.29	1.26
		NO_x	8.08	17.07
		CO	3.17	13.89
		SO_2	0.02	0.10
		VOC	0.21	0.91
7D	Induction Furnace Baghouse Stack	PM	1.33	5.81
		PM_{10}	1.33	5.81
		$PM_{2.5}$	0.69	3.03
7F	Anode Cleaning-General Baghouse Stack	PM	0.75	3.29
		PM_{10}	0.75	3.29
		$PM_{2.5}$	0.39	1.72
7G	Anode Cleaning-General Baghouse Stack	PM	0.75	3.29
		PM_{10}	0.075	3.29
		$PM_{2.5}$	0.39	1.72
8D	Heat, Steam, and Power Boiler Stack	PM	0.02	0.10
		PM_{10}	0.02	0.10
		$PM_{2.5}$	0.02	0.10
		NO_x	0.63	1.33
		CO	0.25	1.08
		SO_2	<0.01	0.01
		VOC	0.02	0.07
8E	Heat, Steam, and Power Boiler Stack	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.03	0.15
		NO_x	0.94	2.00
		CO	0.37	1.62

Emission Sources - Maximum Allowable Emission Rates

		SO_2	<0.01	0.02
		VOC	0.02	0.11
F131	Crucible Preheater Stack	PM	0.03	0.10
		PM_{10}	0.03	0.10
		$PM_{2.5}$	0.03	0.10
		NO_x	0.63	1.33
		CO	0.25	1.09
		SO_2	<0.01	0.01
		VOC	0.02	0.08
F15	Skim Storage Room Vent (5)	PM	0.02	0.10
		PM_{10}	0.02	0.10
		$PM_{2.5}$	<0.01	0.02
F1A	Coke and Pitch Unloading (5)	PM	0.05	0.03
		PM_{10}	0.05	0.03
		$PM_{2.5}$	0.01	<0.01
F1B	Coke Unloading (5)	PM	0.05	<0.01
		PM_{10}	0.05	<0.01
		$PM_{2.5}$	0.01	<0.01
F9A	Ore Unloading Station (5)	PM	0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
V8C1	Potling Mixing Cathode Material Mixing (5)	PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
V8C2	Potling Mixing Cathode Material Mixing (5)	PM	0.01	<0.01
		PM_{10}	0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	<0.01	<0.01
F18	Building 80 Lab Emissions Vent (5)	IPA	-	0.30
		$C_6H_5CH_3$	-	0.06
		CH_3COCH_3	-	0.33
13FUG1	Ingot Plant Fugitives (5) Ingot Plant Roof Vents	PM	0.06	0.24
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
		NO_x	0.72	3.17
		CO	0.61	2.66
		SO_2	0.01	0.02
		VOC	0.042	0.17
		Cl_2	1.80	0.25
		HCl	2.76	0.07
F11C	Lime Unloading (5)	PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
9CONV41	Conveyor Belt 41 (5)	PM	0.17	0.36
		PM_{10}	0.08	0.17
		$PM_{2.5}$	0.01	0.03
9CONV42	Conveyor Belt 42 (5)	PM	0.23	0.49
		PM_{10}	0.11	0.24
		$PM_{2.5}$	0.02	0.04

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide

Emission Sources - Maximum Allowable Emission Rates

PM	-	total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10}	-	total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$	-	particulate matter equal to or less than 2.5 microns in diameter
CO	-	carbon monoxide
HCl	-	hydrogen chloride
PF	-	particulate fluoride
HF	-	hydrogen fluoride-gaseous fluoride
F_2	-	total fluorides
IPA	-	isopropanol
$C_6H_5CH_3$	-	toluene
CH_3COCH_3	-	acetone
COS	-	carbonyl sulfide
Cl_2	-	chlorine
HAP	-	hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Total authorized VOC emissions is the sum of the speciated and un-speciated VOC values, i.e. includes IPA, toluene, COS, and VOC.
(7) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

Date July 2, 2015