EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 8166

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 shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. 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 * lb/hr (max)	lb/hr (avg)	TPY
344	Bauxite Unloading (4)	TSP	19.58	1.48	3.28
		PM_{10}	9.27	0.70	1.55
345	Bauxite Conveyor No. 1 (4)	TSP	0.97	0.07	0.16
		PM_{10}	0.46	0.03	0.08
R10/ATBS	"A" Tower Transfer (4)	TSP	0.28	0.10	0.05
		PM_{10}	0.13	0.05	0.02
346	Bauxite Conveyor No. 3 (4)	TSP	0.10	0.02	0.02
		PM_{10}	0.05	0.01	<0.01
348	Bauxite Conveyor Transfer (4)	TSP	1.13	0.93	1.19
		PM_{10}	0.53	0.44	0.56
349	Bauxite Conveyors No. 3A, 3B, and 9 (4)	TSP	1.16	0.13	1.11
		PM_{10}	0.56	0.06	0.54
R10/BOSx10	Bauxite Storage Piles (4)	TSP	29.57		16.10
		PM_{10}	4.44		2.41
R10/BHxx11	Bauxite Handling (4)	TSP	0.05	<0.01	<0.01
		PM_{10}	0.03	<0.01	<0.01
R10/BHNx	North Reclaim Hopper (4)	TSP	0.36	0.03	0.03
		PM_{10}	0.18	0.01	0.02
R10/BHSx	South Reclaim Hopper (4)	TSP	0.36	0.03	0.03
		PM_{10}	0.18	0.01	0.02
R16/BDxx11	Reclaim Conveyor (4)	TSP	3.78	0.40	0.38
		PM_{10}	1.79	0.19	0.18

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

* Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr (max)	lb/hr (avg)	TPY
355?	Reclaim Conveyor (4)	TSP	0.80	<0.01	<0.01
		PM_{10}	0.38	<0.01	<0.01
312	Rod Mills Slurry Vents (4)	Hg	0.0378		0.132
		VOC	0.99		3.5
322	R25A Tank Vents (4)	Hg	0.0064		0.024
		VOC	2.5		9.5
298	Digestion Blow Off Unit 1 Tank No. 1 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22
299	Digestion Blow Off Unit 1 Tank No. 2 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22
300	Digestion Blow Off Unit 2 Tank No. 3 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22
301	Digestion Blow Off Unit 2 Tank No. 4 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22
302	Digestion Blow Off Unit 3 Tank No. 5 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22
303	Digestion Blow Off Unit 3 Tank No. 6 (4)	Hg	0.0011		0.004
		PM_{10}	0.09		0.33
		NaOH	0.09		0.33
		VOC	0.07		0.22

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg) TPY
304	Digestion Blow Off Unit 4 Tank No. 7 (4)	Hg	0.0011	0.004
		PM_{10}	0.09	0.33
		NaOH	0.09	0.33
		VOC	0.07	0.22
305	Digestion Blow Off Unit 4 Tank No. 8 (4)	Hg	0.0011	0.004
		PM_{10}	0.09	0.33
		NaOH	0.09	0.33
		VOC	0.07	0.22
306	Digestion Blow Off Unit 5 Tank No. 9 (4)	Hg	0.0017	0.006
		PM_{10}	0.57	2.07
		NaOH	0.57	2.07
		VOC	1.40	5.10
307	Digestion Blow Off Unit 5 Tank No. 10 (4)	Hg	0.0017	0.006
		PM_{10}	0.57	2.07
		NaOH	0.57	2.07
		VOC	1.40	5.10
308	Digestion Blow Off Unit 6 Tank No. 11 (4)	Hg	0.0017	0.006
		PM_{10}	0.57	2.07
		NaOH	0.57	2.07
		VOC	1.40	5.10
309	Digestion Blow Off Unit 6 Tank No. 12 (4)	Hg	0.0017	0.006
		PM_{10}	0.57	2.07
		NaOH	0.57	2.07
		VOC	1.40	5.10
R30/DVxx01	Digestion Vacuum Vent	Hg	0.0017	0.007
		VOC	5.95	22.62

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg) TPY
R35/LTTx01	Low Temperature Thickeners (4)	Hg	0.07	0.27
		VOC	1.18	4.48
R35V/FEA01	Flocculent Storage Tank A (4)	VOC	3.59	0.37
R35V/FWB01	Flocculent Storage Tank B (4)	VOC	3.59	0.16
R35V/FCx01	Flocculent Storage Tank C (4)	VOC	3.59	0.17
R35/HTTx01	High Temperature Thickeners (4)	Hg	0.0004	0.001
		VOC	0.16	0.62
R35J1/CS01	Causticizer Vent (North)	PM_{10}	0.27	1.2
		NaOH	0.27	1.2
R35J1/CN01	Causticizer Vent (South)	PM_{10}	0.27	1.2
		NaOH	0.27	1.2
313	Heat Interchange Vacuum Vent Units 1-5	Hg	0.0023	0.007
		VOC	0.23	0.75
R42/HI7A01	Heat Interchange Vacuum Vent Unit 7A	Hg	0.0031	0.012
		VOC	0.32	1.2
343B	Heat Interchange Vacuum Vent Unit 7B	Hg	0.0031	0.012
		VOC	0.32	1.2
R42/03EV01	No. 3 Evaporator Vacuum Vent (Enhanced Green Liquor Cooling System)	Hg	0.0006	0.002
		VOC	0.02	0.05
314	Barometric Condenser	Hg	<0.0001	<0.001

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
	Vacuum	VOC	0.01		0.04
R45/PAVx00	Precipitation Tanks (4)	Hg	0.0027		0.01
		PM_{10}	6.08		46.81
		NaOH	6.08		46.81
		VOC	0.95		3.59
R42/01EV01	No. 1 Evaporator Vacuum Vent	Hg	0.0006		0.002
		VOC	0.02		0.05
R42/02EV01	No. 2 Evaporator Vacuum Vent	Hg	0.0006		0.002
		VOC	0.02		0.05
R42/04EV01	No. 4 Evaporator Vacuum Vent	Hg	0.0006		0.002
		VOC	0.02		0.05
R42/06EV01	Flash Vacuum Vent No. 2	Hg	0.0006		0.002
		VOC	0.02		0.05
R110/HP101	High Pressure Boiler No. 1	CO	37.54		134.56
		NO_x	65.86		236.09
		PM_{10}	4.43		5.87
		SO_2	2.32		8.32
		VOC	0.44		1.59
R110/HP201	High Pressure Boiler No. 2	CO	27.57		95.44
		NO_x	38.77		134.19
		PM_{10}	3.54		4.54
		SO_2	1.86		6.43
		VOC	0.35		1.23
R110/HP301	High Pressure Boiler No. 3	CO	15.02		51.98
		NO_x	34.40		119.07

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
		PM_{10}	3.54		4.54
		SO_2	1.86		6.43
		VOC	0.35		1.23

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

* Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr (max)	lb/hr (avg) TPY
R110/HP411	High Pressure Boiler No. 4	CO	27.57	95.44
		NO_x	38.77	134.19
		PM_{10}	3.54	4.54
		SO_2	1.86	6.43
		VOC	0.35	1.23
R110/HP501	High Pressure Boiler No. 5	CO	38.22	137.00
		NO_x	51.87	185.93
		PM_{10}	4.43	5.87
		SO_2	2.32	8.32
		VOC	0.44	1.59
R110/LP101	Low Pressure Boiler No. 1	CO	22.22	37.17
		NO_x	20.29	33.94
		PM_{10}	2.84	1.55
		SO_2	1.31	2.20
		VOC	0.25	0.42
R110/LP201	Low Pressure Boiler No. 2 (5)	CO	76.7	4.09?
		NO_x	21.25	11.84
		PM_{10}	2.84	0.52
		SO_2	1.31	0.73
		VOC	0.25	0.14
R110/SBX01	Substitute Boiler	CO		
		NO_x		
		PM_{10}		
		SO_2		
		VOC		
R110/CVA01	Powerhouse Condensate Tank (4)	Hg	<0.0001	<0.001
		VOC	<0.01	<0.01
341B	Powerhouse Condensate Tank (4)	Hg	<0.0001	<0.001
		VOC	<0.01	<0.01
R110/40x1	40-Pound Deaereator Vent A	Hg	0.0032	0.012
		VOC	2.00	7.59

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg) TPY
R110/40x2	40-Pound Deaereator Vent B	Hg	0.0032	0.012
		VOC	2.00	7.59
R110/40x3	40-Pound Deaereator Vent C	Hg	0.0032	0.0012
		VOC	2.00	7.59
R55-1/FC11	Calciner No. 1 ESP Stack	Hg	0.0181	0.063
		VOC	2.10	7.27
		PM_{10}	33.94	135.63
		Al_2O_3	33.94	135.63
		NO_x	12.60	50.00
		CO	151.20	524.10
		SO_2	1.43	5.54
R55-2/FC11	Calciner No. 2 ESP Stack	Hg	0.0181	0.063
		VOC	2.25	7.27
		PM_{10}	18.86	67.7
		Al_2O_3	18.86	67.7
		NO_x	13.5	50.00
		CO	162.00	524.10
		SO_2	1.57	5.54
R55-3/FC11	Calciner No. 3 ESP Stack	Hg	0.0181	0.063
		VOC	2.25	6.90
		PM_{10}	18.86	67.70
		Al_2O_3	18.86	67.70
		NO_x	25.56	58.45
		CO	162.00	460.42
		SO_2	1.57	5.56
R50/07AG11	No. 7 Air Gravity Conveyor Baghouse Stack	PM_{10}	0.01	0.04
		Al_2O_3	0.01	0.04

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R50/09AG11	No. 9 Air Gravity Conveyor Baghouse Stack	PM_{10}	0.01		0.04
		Al_2O_3	0.01		0.04
R51/ASVx11	R-51 Storage Tank Baghouse Stack	PM_{10}	0.19		0.86
		Al_2O_3	0.19		0.86
R5#2TL11	Track No. 2 Railcar Loading Baghouse Stack	PM_{10}	1.42		6.20
		Al_2O_3	1.42		6.20
R51/#3TL11	Track No. 3 Railcar Loading Baghouse Stack	PM_{10}	1.42		6.20
		Al_2O_3	1.42		6.20
R53C/40B11	No. 40 Belt Transfer Baghouse Stack	PM_{10}	0.56		2.07
		Al_2O_3	0.56		2.07
R53C/SVx11	R-53C Alumina Storage Tank Transfer Baghouse Stack	PM_{10}	0.29		0.39
		Al_2O_3	0.29		0.39
206	Railcar Loading Fugitives (4)	TSP	4.15	0.84	2.52
		PM_{10}	2.28	0.46	1.38
		Al_2O_3	4.15	0.84	2.52
R53CATS11	R-53 Alumina Storage Tank to Air Gravity Conveyor Load Out Baghouse Stack	PM_{10}	2.04		8.86
		Al_2O_3	2.04		8.86
R52/BLCD11	Conveyor No. 32 to Conveyor No. 33 Transfer Baghouse Stack	PM_{10}	0.67		0.90
		Al_2O_3	0.67		0.90

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

* Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr (max)	lb/hr (avg)	TPY
R52/BLCx31	Bulk Loading South Baghouse Stack	PM_{10}	1.35		0.46
		Al_2O_3	1.35		0.46
R52/BLCx21	Bulk Loading North Baghouse Stack	PM_{10}	1.08		1.09
		Al_2O_3	1.08		1.09
R52/BLCx41	Telescopic Chute Top Baghouse Stack	PM_{10}	0.34		0.46
		Al_2O_3	0.34		0.46
R52/BLCx11	Telescopic Chute Bottom Baghouse Stack	PM_{10}	0.20		0.27
		Al_2O_3	0.20		0.27
R52/DOCK00	Bulk Loading Fugitive (4) (7)	TSP	30.40	6.13	16.77
		PM_{10}	16.72	3.37	9.22
		Al_2O_3	30.40	6.13	16.77
R110/HP611	High Pressure Boiler No. 6 (4)	CO	14.10		61.77
		NO_x	11.43		50.08
		PM_{10}	4.95		8.01
		SO_2	2.59		11.35
		VOC	0.50		2.17
R56/HF1201	Calciner Filter Vacuum Vents (4)	Hg	0.0019		0.0078
		VOC	2.90		12.08
R56-4/FC11	Calciner No. 4 ESP Stack	Hg	0.036		0.129
		VOC	4.34		15.48
		PM_{10}	8.04		27.96
		Al_2O_3	8.04		27.96
		NO_x	26.04		92.87
		CO	78.12		278.62
		SO_2	2.95		10.53

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R56/AHC211	Unit 4 Air Gravity Conveyor Baghouse Stack	PM_{10}	0.31		1.35
		Al_2O_3	0.31		1.35
359?	Head Pulley Baghouse Stack	PM_{10}	0.15		0.66
		Al_2O_3	0.15		0.66
R56-4/CT01	Calciner No. 4 Cooling Tower (4)	PM_{10}	0.0019		0.0083
		NaOH	0.0019		0.0083
R55/ESPD11	ESP Dust Redigest System Vent (6)	Al_2O_3	0.46		2.01
		PM_{10}	0.23		1.01
		TSP	0.46		2.01
318?	ESP Dust Agglomeration Unit No. 1 Baghouse Stack (6)	Al_2O_3	0.69		3.02
		PM_{10}	0.69		3.02
319?	ESP Dust Agglomeration Unit No. 2 Baghouse Stack (6)	Al_2O_3	0.69		3.02
		PM_{10}	0.69		3.02
320?	ESP Dust Agglomeration Unit No. 1 Scrubber Stack (6)	Al_2O_3	0.01		0.04
		TSP	0.01		0.04
		PM_{10}	0.005		0.02
321?	ESP Dust Agglomeration Unit No. 2 Scrubber Stack (6)	Al_2O_3	0.01		0.04
		TSP	0.01		0.04
		PM_{10}	0.005		0.02
R51C/AVx11	Alumina Storage Vessel Baghouse Stack (8)	PM_{10}	6.00		26.00
R51E/05L11	Track Loading Baghouse Stack (8)	PM_{10}	?		?

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R51E/06L11	Track Loading Baghouse Stack (8)	PM_{10}	?		?
R51E/SPV11	Special Products Vessel Baghouse Stack (8)	PM_{10}	?		?
R51E/SVx11	Alumina Storage Vessel Baghouse Stack (8)	PM_{10}	?		?
R25/RM0101	Rod Mill No. 1	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0201	Rod Mill No. 2	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0301	Rod Mill No. 3	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0401	Rod Mill No. 4	VOC	1.00	4.38	
		Hg	0.01	0.02	
R25/RM0501	Rod Mill No. 5	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0601	Rod Mill No. 6	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0701	Rod Mill No. 7	VOC	1.00		4.38
		Hg	0.01	0.02	
R25/RM0801	Rod Mill No. 8	VOC	1.00		4.38
		Hg	0.01	0.02	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R35/STxx00	Secondary Thickeners	VOC	2.00		5.00
R35/WTAx00	Washer Train A	VOC	2.00		5.00
		Hg	0.20	0.90	
R35/WTBx00	Washer Train B	VOC	2.00		5.00
		Hg	0.20	0.90	
R55/HF1401	???????????				
R50/K04X03	Kiln Vent No. 4 (9)	PM_{10}	92.90		4.65
R50/K05X03	Kiln Vent No. 5 (9)	PM_{10}	92.90		4.65
R50/K06X03	Kiln Vent No. 6 (9)	PM_{10}	92.90		4.65
R50/K07X03	Kiln Vent No. 7 (9)	PM_{10}	92.90		4.65
R50/KVAx01	Kiln Vacuum Pump A	VOC	3.00		11.83
R50/KVBx02	Kiln Vacuum Pump B	VOC	3.00		11.83
B37/UOTx01	Used Oil Storage Tank (10)	VOC	1.00		1.00
R10/DSTx01	Diesel Storage Tank (10)	VOC	0.50		0.12
R10/UOTx01	Used Oil Storage Tank (10)	VOC	1.00		1.00
R111/UOT01	Used Oil Storage Tank (10)	VOC	1.00		1.00
R148/SBN11	Sand Blasting Machine Shop North (10)	PM_{10}	0.50		
			0.30		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R148/SBS11	Sand Blasting Machine Shop South (10)	PM_{10}	0.50		
			0.30		
R15/DSTx01	Diesel Storage Tank (10)	VOC	0.50		0.12
R25/PCL101	Precoat Lime Slaker No. 1 (10)	PM	0.20		0.80
R25/PLS201	Process Lime Slaker No. 2 (10)	PM	0.20		0.80
R25/PLSx01	New Product Lime Slaker (10)	PM	0.20		0.80
R35/HCLx11	HCl Storage Tank (10)	HCl	0.12		0.54
R35M/D0100	Dredge Lake No. 1 (10)	PM	0.40		0.18
		PM_{10}	0.30		0.15
R35M/D0200	Dredge Lake No. 2 (10)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/L0400	Lake No. 4 (10)	PM	11.80		5.20
		PM_{10}	10.00	4.49	
R35M/LF300	Landfill Site III (10)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/RLx00	Recycle Lake (10)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35V/DFV11	Flocculent Vessel No. 1 Baghouse (10)	PM_{10}	0.14		
			0.61		
R35V/DFV21	Flocculent Vessel No. 2 Baghouse (10)	PM_{10}	0.14		
			0.61		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

* Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr (max)	lb/hr (avg) TPY
R38M/SBx11	Sand Blasting (10)	PM_{10}	1.00	1.00
R38M/UOT01	Used Oil Storage Tank (10)	VOC	1.00	1.00
R45/DSTx01	Diesel Storage Tank (10)	VOC	0.50	0.12
R45/Exxx00	Ethanol Containers (10)	VOC	0.50	0.10
R45/OSVx11	Oxalate System Vessel (10)	PM_{10}	0.05	0.22
R50/#5LP11	Low Lift Pot (10)	PM	0.26	1.16
R50/#7LP11	Low Lift Pot (10)	PM_{10}	0.26	1.16
R50/01AG11	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/02AG21	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/03AG21	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/04AG21	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/08AG11	Air Gravity Conveyor (10)	PM_{10}	0.34	1.50
R50/10AG11	Air Gravity Conveyor (10)	PM_{10}	0.30	1.30
R50/1AAG11	Air Gravity Conveyor (10)	PM_{10}	0.34	1.50
R50/2EAG11	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/3EAG11	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/4EAG11	Air Gravity Conveyor (10)	PM_{10}	0.26	1.16
R50/56LP11	Low Lift Pot (10)	PM_{10}	0.26	1.16
R50/67LP11	Low Lift Pot (10)	PM_{10}	0.26	1.16

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R50/ASPV11	Special Products Vessel (10)	PM_{10}	6.00		26.28
R51/ASVx11	Storage Vessel (10)	PM_{10}	6.00		26.28
R53/RCUx11	Railcar Unloading (10)	PM_{10}	1.37		6.01
R55-2/DB11	Flash Calciner Disengaging Box (10)	PM_{10}	3.00		13.14
R55-3/DB11	Flash Calciner Disengaging Box (10)	PM_{10}	3.00		13.14
R55/01DB12	Spare Disengaging Box (10)	PM_{10}	3.00		13.14
R8/SHTxx01	Starch Vessel (10)	PM_{10}	6.00		10.00
R81/SDxx11	Spar Drying (10)	PM_{10}	0.87		3.83
R81/SGxx11	Spar Grinding (10)	PM_{10}	0.19		0.83
R85B/HSV11	Hydrate Storage (10)	PM_{10}	0.06		0.60
B37/Gxxx00	Garage Fugitives (9)	VOC	1.00		1.00
B60/S00600	Smelting Lagoon (9)	VOC	1.00		1.00
R10/AOTx01	Absorption Oil Tank (9)	VOC	1.00		1.00
R10/SADx00	Sulfuric Acid Unloading Dock (9)	H2SO4	1.00		1.00
R111/Gxx00	Garage Fugitives (9)	VOC	1.00		0.40
R115/STP01	Sanitary Treatment Plant (9)	Cl	1.00		0.10

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R148/MSx11	Machine Shop Fugitives (9)	PM_{10}	1.00		1.00
R35/PSBx00	Painting/Sandblasting Fugitives (9)	PM	0.06		0.24
		PM_{10}	0.03	0.12	
		VOC	1.35	5.91	
R35M/CLx00	Clear Lake (9)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/L0100	Lake No. 1 (9)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/L0300	Lake No. 2 (9)	PM	11.8		5.20
		PM_{10}	10.00	4.40	
R35M/L0300	Lake No. 3 (9)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/RWx00	Raw Water Lake (9)	PM	0.40		0.18
		PM_{10}	0.30	0.15	
R35M/SLx00	Storm Lake (9)	PM	5.70		2.50
		PM_{10}	5.00	1.10	
R45/GSTx01	Gasoline Storage Tank (9)	VOC	1.00		1.00
R55-1/DB11	Flash Calciner Disengaging Box (9)	PM_{10}	3.00		13.14
R60/LCDx11	Lime Conveyor Discharge (9)	PM_{10}	8.26		36.18
R60/LKxx11	Lime Kiln (9)	PM_{10}	8.26		36.18
		VOC	2.00	8.76	
		SO_2	1.00	4.38	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg) TPY
		CO	16.00	70.08
		NO_x	50.00	219.00
R60/LTxx11	Lime Transfer (9)	PM_{10}	2.47	10.80
R85/HD0111	No. 1 Hydrate Dryer (9)	PM_{10}	3.00	13.14
R85/HD0211	No.2 Hydrate Dryer (9)	PM_{10}	3.00	13.14
R85/HH0211	Hydrate Handling No.2 (9)	PM_{10}	0.57	2.50
R85/HH0111	Hydrate Handling No. 1 (9)	PM_{10}	0.57	2.50
R85/OSLx00	On-Shore Lagoon (9)	PM_{10}	1.00	1.00
R10/SDOS00	Spar Drop to Outside Storage (9)	PM_{10}	0.01	0.01
R10/ST3D00	Spar Transfer No. 3 Conveyor (9)	PM_{10}	0.01	0.01
R73C/RCL11	Railcar Loading (9)	PM_{10}	0.19	0.19
R8/SATxx01	Sulfuric Acid Tank (9)	H_2SO_4	1.00	1.00
R81/SULx11	Spar Unloading (9)	PM_{10}	0.19	0.83
R81/SV0101	Spar Vessel Vent No. 1 (9)	PM_{10}	0.32	1.37
R81/SV0201	Spar Vessel Vent No. 2 (9)	PM_{10}	0.32	1.37
R81/SV0301	Spar Vessel Vent No. 3 (9)	PM_{10}	0.32	1.37
R82/SHxx11	Spar Handling (9)	PM_{10}	0.94	4.12

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R83A/SAT01	Sulfuric Acid Tank (9)	H_2SO_4	1.00		1.00
R83B/SAT01	Sulfuric Acid Tank (9)	H_2SO_4	1.00		1.00
R83C/SAL01	Sulfuric Acid Lift Tank (9)	H_2SO_4	1.00		1.00
R83D/SAL01	Sulfuric Acid Lift Tank (9)	H_2SO_4	1.00		1.00
R84/AFC111	AlF3 Converter No. 1 (9)	PM_{10}	0.2		
		HF	0.001		
		H_2SO_4	0.05		
		VOC	0.33		
R84/AFC211	AlF_3 Converter No. 2 (9)	PM_{10}	0.2		
		HF	0.2		
		H_2SO_4	0.05		
		VOC	0.33		
R84/AFC311	AlF_3 Converter No. 2 (9)	PM_{10}	0.2		
		HF	0.001		
		H_2SO_4	0.05		
		VOC	0.33		
R84/AFC411	AlF_3 Converter No. 4 (9)	PM_{10}	0.2		
		HF	0.001		
		H_2SO_4	0.05		
		VOC	0.33		
R84/AFC511	AlF_3 Converter No. 5 (9)	PM_{10}	0.2		
		HF	0.001		
		H_2SO_4	0.05		
		VOC	0.33		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R84/AFC611	AlF_3 Converter No. 6 (9)	PM_{10}	0.2		
		HF 0.001			
		H_2SO_4 0.05			
		VOC 0.33			
	Total of All Converters	PM_{10}			5.26
		HF		0.10	
		H_2SO_4		1.31	
		VOC		8.67	
R84/AFEx11	AlF_3 Elevator (9)	PM_{10}	0.34		1.49
R84/HFF101	HF Furnace No. 1 (9)	PM_{10}	0.02		
		SO_2 1.00			
		CO 0.02			
		NO_x 0.12			
		VOC 0.01			
		HF 0.01			
R84/HFF201	HF Furnace No. 2 (9)	PM_{10}	0.02		
		SO_2 1.00			
		CO 0.02			
		NO_x 0.12			
		VOC 0.01			
		HF 0.01			
R84/HFF301	HF Furnace No. 3 (9)	PM_{10}	0.02		
		SO_2 1.00			
		CO 0.02			
		NO_x 0.12			
		VOC 0.01			
		HF 0.01			
R84/HFF401	HF Furnace No. 4 (9)	PM_{10}	0.02		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
		SO_2	1.00		
		CO	0.02		
		NO_x	0.12		
		VOC	0.01		
		HF	0.01		
R84/HFF501	HF Furnace No. 5 (9)	PM_{10}	0.02		
		SO_2	1.00		
		CO	0.02		
		NO_x	0.12		
		VOC	0.01		
		HF	0.01		
R84/HFF601	HF Furnace No. 6 (9)	PM_{10}	0.02		
		SO_2	1.00		
		CO	0.02		
		NO_x	0.12		
		VOC	0.01		
		HF	0.01		
	Total of All Furnaces	PM_{10}			0.53
		SO_2		26.28	
		CO		0.53	
		NO_x		3.15	
		VOC		0.27	
		HF		0.27	
R84/HFK111	HF Kiln No. 1 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R84/HFK211	HF Kiln No. 2 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		
R84/HFK311	HF Kiln No. 3 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		
R84/HFK411	HF Kiln No. 4 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		
R84/HFK511	HF Kiln No. 5 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		
R84/HFK611	HF Kiln No. 6 Gypsum Box (9)	PM_{10}	0.04		
		HF	0.86		
		H_2SO_4	1.33		
		VOC	0.01		
	Total of All Gypsum Boxes	PM_{10}			1.05
		HF		22.60	
		H_2SO_4		34.95	
		VOC		0.26	
R84/SF1611	Spar Feed Baghouse (9)	PM_{10}	0.36		1.58
R84NZ/HS11	Hydrate Storage North A, B, C (9)	PM_{10}	0.03		0.03

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr (max)	lb/hr (avg)	TPY
R84SZ/HS11	Hydrate Storage South A, B, C (9)	PM_{10}	0.03		0.03
R84NA/HS01	Hydrate Vessel Vent No. 4 (9)	PM_{10}	0.03		0.03
R84NB/HS01	Hydrate Vessel Vent No. 5 (9)	PM_{10}	0.03		0.03
R84NC/HS01	Hydrate Vessel Vent No. 6 (9)	PM_{10}	0.03		0.03
R84SA/HS01	Hydrate Vessel Vent No. 1 (9)	PM_{10}	0.03		0.03
R84SB/HS01	Hydrate Vessel Vent No. 2 (9)	PM_{10}	0.03		0.03
R84SC/HS01	Hydrate Vessel Vent No. 3 (9)	PM_{10}	0.03		0.03
R86Z/AFS11	AlF_3 Storage (9)	PM_{10}	0.08		0.08

(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) TSP - total suspended particulate matter
PM_{10} - particulate matter less than 10 microns in diameter
Hg - mercury
VOC - volatile organic compounds as defined in General Rule 101.1
CO - carbon monoxide
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
NaOH - sodium hydroxide
Al_2O_3 - alumina

(4) Fugitive emissions are an estimate only.
(5) Previously authorized under Air Quality Permit No. 4994.
(6) Previously registered under Standard Exemption Registration Nos. 23697 and 23744.
(7) Hourly rate based on maximum emissions from all 10 transfer points. Only 6 of these will operate simultaneously on an hourly basis (3.90 lb/hr TSP and 2.14 lb/hr PM_{10} average and 19.34 lb/hr TSP and 10.64 lb/hr PM_{10} maximum)
(8) Previously authorized under Permit No. 1475.
(9) Previously grandfathered.
(10) Previously authorized under Standard Exemption or Permit by Rule.

* Emission rates are based on the following maximum operating schedule and throughput and production rates:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

	metric ton (mt)/hr	mt/day	mt/yr
Maximum bauxite throughput on the inlet conveying system	2,250		10,000,000
Average alumina production from Bayer Process Facility		6,600	
Maximum alumina production from calciner Nos. 1, 2, 3, and 4		8,640	
Maximum alumina production from calciner Nos. 1, 2, and 3			1,453,870
Maximum alumina production from calciner No. 4			998,640

Dated _____