EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 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, 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	
			lbs/hour	TPY (4)
Raw Material Handling				
R10/GDCX01	R-10 Gantry Drop to Conveyor-Bauxite/Spar and Uncovered Conveyor Belt (R-10 Dock Area) (5)	PM PM_{10}	1.48 0.70	3.28 1.55
R10/ATBS11	R-10 A Tower Bauxite/Spar (5)	PM PM_{10}	0.10 0.05	0.05 0.02
R10/BOSX10	Bauxite Conveyor Nos. 1 and 9 (5)	PM PM_{10}	29.57 4.44	16.10 2.41
R10/BHXX11	R-10 Bauxite Handling (5)	PM PM_{10}	0.05 0.03	<0.01 <0.01
R10/BHNX11	R-10 Bauxite Hopper-North (5)	PM PM_{10}	0.03 0.01	0.03 0.02
R10/BHSX11	R-10 Bauxite Hopper-South (5)	PM PM_{10}	0.03 0.01	0.03 0.02
R10/DSTX01	R-10 Diesel Storage Tank Vent	VOC	0.50	0.12
R10/UOTX01	R-10 Used Oil Storage Tank Vent	VOC	1.00	1.00
R10/SADX00	R-10 Sulfuric Acid Unloading Dock (5)	H_2SO_4	1.00	1.00
R10/B33A10	R-10 Bauxite Transfer No. 3 Conveyor to No. 3A Belt (5)	PM PM_{10}	0.23 0.11	0.24 0.11
R10/B33B10	R-10 Bauxite Transfer No. 3 Conveyor to No. 3B Belt (5)	PM PM_{10}	0.23 0.11	0.24 0.11
R10/B39A10	R-10 Bauxite Transfer No. 3 Conveyor to No. 9A Belt (5)	PM PM_{10}	0.23 0.11	0.24 0.11
R10/B31610	R-10 Bauxite Transfer No. 3 Conveyor to No. 16 Belt (5)	PM PM_{10}	0.23 0.11	0.24 0.11

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R10/B31510	R-10 Bauxite Transfer No. 3 Conveyor to No. 15 Belt (5)	PM PM_{10}	0.23 0.11	0.24 0.11
R10/BDS111	R-10 Bauxite Drop To Outside Storage No. 1 (5)	PM PM_{10}	0.23 0.11	0.22 0.11
R10/BDS211	R-10 Bauxite Drop To Outside Storage No. 2 (5)	PM PM_{10}	0.23 0.11	0.22 0.11
R10/BDS311	R-10 Bauxite Drop To Outside Storage No. 3 (5)	PM PM_{10}	0.23 0.11	0.22 0.11
R10/SDOS00	R-10 Spar Drop to Outside Storage (5)	PM/PM_{10}	0.01	0.01
R10/ST3D00	R-10 Spar Transfer No. 3 Conveyor to Drop (5)	PM/PM_{10}	0.01	0.01
R15/BDXX11	R-15 Bauxite Drop-Inside Building(5)	PM PM_{10}	0.23 0.11	0.22 0.11
R15/DSTX01	R-15 Diesel Storage Tank Vent	VOC	0.50	0.12
R16/BDXX11	R-16 Bauxite Drop-Inside Building(5)	PM PM_{10}	0.23 0.11	0.22 0.11
R21/BTTX11	R-21 Transfer Tower-Bauxite (5)	PM PM_{10}	0.40 0.19	0.38 0.18
R80/SPAR01-1	R80 Spar Stockpile Transfer - from R10 to outside (7)	PM PM_{10}	4.00 1.60	0.44 0.17
R80/SPAR01-2	R80 Spar Stockpile Transfer - from outside to inside storage (7)	PM PM_{10}	1.70 0.68	0.44 0.17
R80/SPAR01	R80 Spar Stockpile Transfer (7)	PM PM_{10}	-- --	0.87 0.35
Digestion Area				
R30/MSS	Digestion Area MSS (6)	VOC	4.65	1.55
R25/PCL101	R-25 Pre Coat Lime Slaker No. 1 Vent	PM/PM_{10}	0.20	0.80
R25/PLS201	R-25 Process Lime Slaker No. 2 (spare) Vent	PM/PM_{10}	0.20	0.80

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R25/PLSX01	R-25 New Product Lime Slaker Vent	PM/PM_{10}	0.20	0.80
R25/BFCX11	R-25 Building Bauxite Conveyor (R-25 Building) (5)	PM PM_{10}	0.80 0.38	<0.01 <0.01
R25/RM0102	R-25 Rod Mill Feed No. 1 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0202	R-25 Rod Mill Feed No. 2 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0302	R-25 Rod Mill Feed No. 3 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0402	R-25 Rod Mill Feed No. 4 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0502	R-25 Rod Mill Feed No. 5 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0602	R-25 Rod Mill Feed No. 6 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0702	R-25 Rod Mill Feed No. 7 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0802	R-25 Rod Mill Feed No. 8 Vent	VOC Hg	0.14 0.0001	0.44 0.0004
R25/RM0101	R-25 Rod Mill No. 1 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0201	R-25 Rod Mill No. 2 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0301	R-25 Rod Mill No. 3 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0401	R-25 Rod Mill No. 4 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0501	R-25 Rod Mill No. 5 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0601	R-25 Rod Mill No. 6 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0701	R-25 Rod Mill No. 7 Vent	VOC Hg	0.14 0.005	0.44 0.02
R25/RM0801	R-25 Rod Mill No. 8 Vent	VOC Hg	0.14 0.005	0.44 0.02

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R25/BM0101	Ball Mill 1 Entry	VOC Hg	0.14 0.0001	0.61 0.0005
R25/BM0102	Ball Mill 1 Exit	VOC Hg	0.14 0.0001	0.61 0.0005
R25/BM0201	Ball Mill 2 Entry	VOC Hg	0.14 0.0001	0.61 0.0005
R25/BM0202	Ball Mill 2 Exit	VOC Hg	0.14 0.0001	0.61 0.0005
R25/BM0301	Ball Mill 3 Entry	VOC Hg	0.14 0.0001	0.61 0.0005
R25/BM0302	Ball Mill 3 Exit	VOC Hg	0.14 0.0001	0.61 0.0005
R25A/S0101	R-25A Wash Down Slurry Tanks No. 1 Vent (8)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0201	R-25A Wash Down Slurry Tanks No. 2 Vent (8)	VOC Hg	0.50 0.0013	1.90 0.005
	Total R-25A Slurry Tanks No.1 and 2 Vents (8)	VOC Hg	-- --	1.90 0.005
R25A/S0301	R-25A Slurry Tanks No. 3 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0401	R-25A Slurry Tanks No. 4 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0501	R-25A Slurry Tanks No. 5 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0601	R-25A Slurry Tanks No. 6 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0701	R-25A Slurry Tanks No. 7 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
R25A/S0801	R-25A Slurry Tanks No. 8 Vent (9)	VOC Hg	0.50 0.0013	1.90 0.005
	Total R-25A Slurry Tank Nos. 3 thru 8 Vents (9)	Hg VOC	-- --	0.03 9.49
R30/DVXX01	R-30 Digestion Vacuum Vent	Hg VOC	0.013 5.95	0.057 22.62

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R30/L11X01	R-30 Low Temperature 1 Blow Off No. 1 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L11X02	R-30 Low Temperature 1 Blow Off No. 1 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L12X01	R-30 Low Temperature 1 Blow Off No. 2 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L12X02	R-30 Low Temperature 1 Blow Off No. 2 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L23X01	R-30 Low Temperature 2 Blow Off No. 3 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L23X02	R-30 Low Temperature 2 Blow Off No. 3 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L24X01	R-30 Low Temperature 2 Blow Off No. 4 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L24X02	R-30 Low Temperature 2 Blow Off No. 4 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L35X01	R-30 Low Temperature 3 Blow Off No. 5 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L35X02	R-30 Low Temperature 3 Blow Off No. 5 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L36X01	R-30 Low Temperature 3 Blow Off No. 6 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L36X02	R-30 Low Temperature 3 Blow Off No. 6 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

R30/L47X01	R-30 Low Temperature 4 Blow Off No. 7 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L47X02	R-30 Low Temperature 4 Blow Off No. 7 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L48X01	R-30 Low Temperature 4 Blow Off No. 8 Stack A	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R30/L48X02	R-30 Low Temperature 4 Blow Off No. 8 Stack B	Hg PM/PM_{10}/NaOH VOC	0.0006 0.05 0.04	0.002 0.17 0.11
R31/RTXX01	R-31 Relief Tank (Unit 6) (5)	VOC	0.80	3.50
R33/RTXX01	R-33 Relief Tank (Unit 5) (5)	VOC	0.80	3.50
R40/HI0101	R-40 Heat Interchange Vacuum No. 1 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R40/HI0201	R-40 Heat Interchange Vacuum No. 2 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R40/HI0301	R-40 Heat Interchange Vacuum No. 3 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R40/HI0401	R-40 Heat Interchange Vacuum No. 4 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R40/HI0501	R-40 Heat Interchange Vacuum No. 5 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R40/HI0601	R-40 Heat Interchange Vacuum No. 6 Vent	Hg VOC	0.0005 0.05	0.001 0.15
R42/HI7A01	R-42 Heat Interchange Vacuum No. 7 A Vent	Hg VOC	0.0031 0.32	0.012 1.2
R42/01EV01	R-42 No. 1 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05
R42/02EV01	R-42 No. 2 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05
R42/03EV01	R-42 No. 3 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05

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R42/04EV01	R-42 No. 4 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05
R42/06EV01	R-42 No. 6 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05
R111/UOT01	R-111 Used Oil Storage Tank Vent	VOC	1.00	1.00
R60/LCDX11	R-60 Lime Conveyor Discharge Bag Collector Stack	PM/PM_{10}	0.74	3.23
R60/LTXX11	R-60 Lime Transfer/Storage Bag Collector Stack	PM/PM_{10}	2.47	10.80
Clarification Area				
R35J1/CN01	R-35J1 Causticizer Vent-North	PM/PM_{10}/NaOH	0.27	1.20
R35J1/CS01	R-35J1 Causticizer Vent-South	PM/PM_{10}/NaOH	0.27	1.20
R35/LTTX01	R-35 Low Temp Thickeners Vent	Hg VOC	0.0019 1.18	0.0082 4.48
R35V/FCX01	R-35V Flocculent Tank-North No. 1 Vent	VOC	3.59	0.37
R35V/FEA01	R-35V Flocculent Tank-North No. 2 Vent	VOC	3.59	0.37
R35V/FWB01	R-35V Flocculent Tank-South No. 1 Vent	VOC	3.59	0.37
R35/HTTX01	R-35 High Temp Thickeners Vent	Hg VOC	0.0004 0.16	0.001 0.62
R35/HClX11	R-35 HCl Acid Storage Tank Wet Scrubber	HCl	0.12	0.54
R35M/D0100	R-35M Dredge Lake No. 1 (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/D0200	R-35M Dredge Lake No. 2 (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/L0400	R-35M Lake No. 4 (5)	PM PM_{10}	11.80 10.00	5.20 4.49
R35M/LF300	R-35M Landfill Site III (5)	PM PM_{10}	0.40 0.30	0.18 0.15

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R35M/RLX00	R-35M Recycle Lake (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35V/DFV11	R-35V Flocculent Vessel No. 1 Bag Collector Stack	PM/PM_{10}	0.14	0.61
R35V/DFV21	R-35V Flocculent Vessel No. 2 Bag Collector Stack	PM/PM_{10}	0.14	0.61
R35/STXX00	R-35 Secondary Thickeners Vent	VOC Hg	2.00 0.001	5.00 0.004
R35/WTAX00	R-35 Washer Train A Vents	VOC Hg	2.00 0.0001	5.00 0.0004
R35/WTBX00	R-35 Washer Train B Vents	VOC Hg	2.00 0.0001	5.00 0.0004
R35M/CLX00	R-35M Clear Lake (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/L1X00	R-35M Lake No. 1 (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/L2X00	R-35M Lake No. 2 (5)	PM PM_{10}	11.80 10.00	5.20 4.40
R35M/L3X00	R-35M Lake No. 3 (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/RWX00	R-35M Raw Water Lake (5)	PM PM_{10}	0.40 0.30	0.18 0.15
R35M/SLX00	R-35M Storm Lake (5)	PM PM_{10}	5.70 5.00	2.50 1.10
R35/PSBX00	R-35 Painting and Sand Blasting (5)	PM PM_{10} $PM_{2.5}$ VOC	3.44 1.66 0.012 1.50	2.27 1.10 0.06 5.91
R35V/FS201	R-35V Flocculent Tank South No. 2 Vent	VOC	3.59	0.37
R38M/SBX11	R-38M Sand Blasting Bag Collector Stack	PM/PM_{10}	1.00	1.00
R38M/UOT01	R-38M Used Oil Storage Tank Vent	VOC	1.00	1.00

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R42/HECV01	R-42 High Efficiency Causticization Relief Vessel Vent	PM/PM_{10} VOC Hg	0.09 0.07 0.0011	0.40 0.31 0.005
R42/HECP01	R-42 High Efficiency Causticization Vacuum Pump Vent	VOC Hg	0.02 0.0006	0.09 0.003
R115/STP01	R-115 Sanitary Treatment Plant (5)	Cl	1.00	0.10
Precipitation Area				
R45/MSS	Precipitation Area MSS (6)	PM/PM_{10}	4.15	7.90
R45A/C0101	R-45A Barometric Condenser Vent No. 1	Hg VOC	<0.0001 0.01	0.0003 0.013
R45A/C0201	R-45A Barometric Condenser Vent No. 2	Hg VOC	<0.0001 0.01	0.0003 0.013
R45A/C0301	R-45A Barometric Condenser Vent No. 3	Hg VOC	<0.0001 0.01	0.0003 0.013
R45A/C0401	R-45A Barometric Condenser Vent No. 4	Hg VOC	<0.0001 0.01	0.0003 0.013
R45/PAVX00	R-45 Precipitation Area Vessels (5)	$PM/PM_{10}/PM_{2.5}$/NaOH Hg VOC	11.61 0.0027 0.01 0.95	50.87 0.01 3.59
R45/DSTX01	R-45 Diesel Storage Tank Vent	VOC	0.50	0.12
R45/EXXX00	R-45 Ethanol Containers (5)	VOC	0.50	0.10
R45/OSVX11	R-45 Oxalate System Vessel Bag Collector Stack	PM/PM_{10}	0.05	0.22
R45/GSTX01	R-45 Gasoline Storage Tank Vent	VOC	1.00	1.00
Power House Area				
R110/CVA01	R-110 Condensate Vessel A Vent	Hg VOC	<0.0001 <0.01	<0.001 <0.01
R110/CVD01	R-110 Condensate Vessel D Vent	Hg VOC	<0.0001 <0.01	<0.001 <0.01
R110/40X01	R-110 40 lbs Deaerator Vent A	Hg VOC	0.0032 2.00	0.01 7.59

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R110/40X02	R-110 40 lbs Deaerator Vent B	Hg VOC	0.0032 2.00	0.01 7.59
R110/40X03	R-110 40 lbs Deaerator Vent C	Hg VOC	0.0032 2.00	0.01 7.59
R110/HP101	R-110 High Pressure Boiler No. 1 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.44 4.43 65.86 37.54 2.32	1.59 19.38 236.10 134.60 8.32
R110/HP201	R-110 High Pressure Boiler No. 2 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.35 3.54 38.77 27.57 1.86	1.23 15.51 134.20 95.40 6.43
R110/HP301	R-110 High Pressure Boiler No. 3 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.35 3.54 34.40 15.02 1.86	1.23 15.51 119.10 52.00 6.43
R110/HP411	R-110 High Pressure Boiler No. 4 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.35 3.54 38.77 27.57 1.86	1.23 15.51 134.20 95.40 6.43
R110/HP501	R-110 High Pressure Boiler No. 5 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.44 4.43 51.87 38.22 2.32	1.59 19.38 185.90 137.00 8.32
R110/HP611	R-110 High Pressure Boiler No. 6 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.50 4.95 22.87 14.10 2.59	2.17 21.68 100.20 61.80 11.35
R110/LP101	R-110 Low Pressure Boiler No. 1 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.25 2.84 20.29 22.22 1.31	0.42 12.42 44.30 37.20 2.20

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R110/LP201	R-110 Low Pressure Boiler No. 2 Stack (10)	VOC PM/PM_{10} NO_x CO SO_2	0.25 2.84 26.47 76.70 1.31	0.14 12.42 11.80 42.70 0.73
	Total of all boilers High Pressure Boilers Nos. 1 through 6 and Low Pressure Boilers Nos. 1 through 2 (10)	VOC PM/PM_{10} NO_x CO SO_2	-- -- -- -- --	10.27 99.83 942.19 737.88 50.21
R110/05D01	R-110 5-lb Deaerator Vent	VOC Hg	0.0002 0.0005	0.001 0.002
R110/95D01	R-110 95-lb Deaerator Vent	VOC Hg	0.07 0.0003	0.29 0.002
R110/CTX01	R-110 Cooling Tower (5)	PM/PM_{10}	0.10	0.50
Calcination Area				
R55-1/FC11	R-55-1 Flash Calciner Smelter Grade Alumina (SGA) Electrostatic Precipitator (ESP) Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	14.75 33.94 12.60 151.20 1.43 0.0091	35.92 81.99 47.83 438.31 6.88 0.04
R55-1/FC11	R-55-1 Flash Calciner Hard Burn Alumina (HBA) ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	3.69 33.94 55.38 36.00 1.57 0.0091	35.92 81.99 47.83 438.31 6.88 0.04
R55-1/FCMSS	R55-1 Flash Calciner MSS (6)	PM/PM_{10}	9.51	0.044
R55-2/FC11	R-55-2 Flash Calciner SGA ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	14.75 18.86 13.50 162.00 1.57 0.0091	35.92 81.99 47.83 438.31 6.88 0.04

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R55-2/FC11	R-55-2 Flash Calciner HBA ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	3.69 33.94 55.38 36.00 1.57 0.0091	35.92 81.99 47.83 438.31 6.88 0.04
R55-2/FCMSS	R55-2 Flash Calciner MSS (6)	PM/PM_{10}	9.51	0.044
R55-3/FC11	R-55-3 Flash Calciner (SGA) ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	14.75 18.86 13.50 162.00 1.57 0.0091	35.92 81.99 47.83 438.31 6.88 0.04
R55-3/FC11	R-55-3 Flash Calciner HBA ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	3.69 33.94 55.38 36.00 1.57 0.0091	35.92 81.99 47.83 438.31 6.88 0.04
R55-3/FCMSS	R55-3 Flash Calciner MSS (6)	PM/PM_{10}	9.51	0.044
R56-4/FC11	R-56-4 Flash Calciner SGA ESP Stack (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	29.40 8.04 31.60 78.12 2.95 0.018	76.16 19.42 133.71 253.22 12.54 0.078
R56-4/FCMSS	R56-4 Flash Calciner MSS (6)	PM/PM_{10}	9.51	0.135
	Total of calcination department EPNs: R55-1/FC11, R55-2/FC11 , R55-3/FC11, and R56-4/FC11 (11)	VOC PM/PM_{10} NO_x CO SO_2 Hg	-- -- -- -- -- --	175.79 250.79 266.39 1469.07 31.17 0.19
R55-1/DB11	R-55-1 Flash Calciner Disengaging Box Bag Collector Stack	PM PM_{10}	0.08 0.04	0.30 0.15
R55-2/DB11	R-55-2 Flash Calciner Disengaging Box Bag Collector Stack	PM PM_{10}	0.08 0.04	0.30 0.15

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R55-3/DB11	R-55-3 Flash Calciner Disengaging Box Bag Collector Stack	PM PM_{10}	0.08 0.04	0.30 0.15
R55/01DB12	R-55-(1-2-3) Disengaging Box-Spare Bag Collector Stack	PM/PM_{10}	3.00	13.14
R55/ESP211	R-55 ESP Dust Redigest Tank No. 2 Wet Scrubber	PM PM_{10}	0.06 0.03	0.24 0.12
R56/ESP11	R-56 ESP Dust Redigest Tank No. 1 Wet Scrubber	PM PM_{10}	0.04 0.02	0.17 0.08
R55/HF1401	R-55 Horizontal Filter Nos. 1, 2, 3, and 4 Vent	VOC Hg	6.48 0.004	6.40 0.016
R56/ESP211	R-56 ESP Dust Redigest Tank No. 2 Wet Scrubber	PM PM_{10}	0.04 0.02	0.17 0.08
R56/HSRX01	R-56 Hydrate Storage Drop to Conveyor (5)	PM/PM_{10}	2.20	1.19
R56/HSRX02	R-56 Hydrate Storage Drop to Stockpile (5)	PM/PM_{10}	2.20	1.19
R56/HSRX03	R-56 Hydrate Storage Stockpile (5)	PM/PM_{10}	2.20	1.19
R56/HRCX21	R-56 Hydrate Railcar Loading Drop from Loader Bucket Into Conveyor Hopper (5)	PM PM_{10}	1.10 0.55	1.19 0.59
R56/HRCX22	R-56 Hydrate Railcar Loading Drop from Hopper to Conveyor (5)	PM PM_{10}	1.10 0.55	1.19 0.59
R56/HRCX23	R-56 Hydrate Railcar Loading Conveyor Drop into Railcar (5)	PM PM_{10}	1.10 0.55	1.19 0.59
R56/HTLX31	R-56 Hydrate Truck Loading Drop from Loader Bucket into Truck (5)	PM PM_{10}	1.10 0.55	1.19 0.59
R56-4/CT01	R-56-4 Cooling Tower (5)	PM/PM_{10}/NaOH	<0.01	<0.01
R55/ESPD11	R-55-ESP Dust Redigest (Tank No. 1) Wet Scrubber	PM PM_{10}	0.06 0.03	0.24 0.12
Product Transport System				
R50/07AG11	R-50 No. 7 Air Gravity Conveyor Bag Collector Stack	PM PM_{10}	0.12 0.06	0.38 0.19
R50/09AG11	R-50 No. 9 Air Gravity Conveyor Bag Collector Stack	PM/PM_{10}	0.15	0.66

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

R50/02AG21	R-50 No. 2 Air Gravity Conveyor - Alumina Bag Collector Stack	PM PM_{10}	0.12 0.06	0.38 0.19
R50/03AG21	R-50 No. 3 Air Gravity Conveyor - Alumina Bag Collector Stack	PM PM_{10}	0.12 0.06	0.38 0.19
R50/04AG21	R-50 No. 4 Air Gravity Conveyor - Alumina Bag Collector Stack	PM/PM_{10}	0.26	1.16
R50/08AG11	R-50 No. 8 Air Gravity Conveyor - Alumina Bag Collector Stack	PM PM_{10}	0.12 0.06	0.38 0.19
R50/2EAG11	R-50 No. 2E Air Gravity Conveyor - Alumina Bag Collector Stack	PM/PM_{10}	0.26	1.16
R50/3EAG11	R-50 No. 3E Air Gravity Conveyor - Alumina Bag Collector Stack	PM/PM_{10}	0.26	1.16
R50/4EAG11	R-50 No. 4E Air Gravity Conveyor - Alumina Bag Collector Stack	PM/PM_{10}	0.26	1.16
R50/A1XX11	R-50 Alumina Handling (A) Bag Collector Stack	PM/PM_{10}	0.43	1.88
R50/A2XX11	R-50 Alumina Handling (B) Bag Collector Stack	PM/PM_{10}	0.43	1.88
R53/RCUX11	R-53 Railcar Unloading Bag Collector Stack	PM/PM_{10}	1.37	6.01
R51C/AVX11	R-51C Alumina Storage Vessel Bag Collector Stack	PM/PM_{10}	6.00	26.00
R51E/05L11	R-51E No. 5 Track Loading- Alumina Bag Collector Stack	PM/PM_{10}	0.59	2.60
R51E/SPV11	R-51E Alumina Special Products Vessel Bag Collector Stack	PM/PM_{10}	0.74	3.20
R51E/SVX11	R-51E Alumina Storage Vessel Bag Collector Stack	PM/PM_{10}	1.10	4.80
R51/02TL11	R-51 Track No. 2 Loading-Alumina Bag Collector Stack	$PM/PM_{10}/Al_2O_3$	1.42	6.20
R51/03TL11	R-51 Track No. 3 Loading-Alumina Bag Collector Stack	$PM/PM_{10}/Al_2O_3$	1.42	6.20
R53C/40B11	R-53C Alumina Conveyor No. 40 Belt to R-53C Bag Collector Stack	PM PM_{10}	0.39 0.19	0.84 0.42

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

R53C/ATS11	R-53C Transfer and Storage Bag Collector Stack	$PM/PM_{10}/PM_{2.5}$	0.13	0.57
R56/AHC221	R-56 Alumina Handling Conveyor No. 2 Tail No. 1 Bag Collector Stack	PM/PM_{10}	0.15	0.66
R56/AHC231	R-56 Alumina Handling Conveyor No. 2 Tail No. 2 Bag Collector Stack	PM/PM_{10}	0.15	0.66
R56/HF1201	R-56 Horizontal Filter No. 1 Vent	Hg VOC	0.0019 2.90	0.0078 12.08
R56/AHC211	R-56 Alumina Handling Conveyor No. 2 Head Pulley Bag Collector Stack	$PM/PM_{10}/Al_2O_3$	0.15	0.66
C30 Hydrate Process Area				
R85/HD0111	R-85 No. 1 Hydrate Dryer Wet Scrubber	PM/PM_{10}	3.00	13.14
R85/HD0211	R-85 No. 2 Hydrate Dryer Wet Scrubber	PM/PM_{10}	3.00	13.14
R85/HH0211	R-85 Hydrate Handling No. 2 Bag Collector Stack	PM/PM_{10}	0.03	1.18
R85/HH0111	R-85 Hydrate Handling No. 1 Bag Collector Stack	PM/PM_{10}	0.03	1.18
R85/OSLX00	R-85 On Shore Lagoon (5)	PM/PM_{10}	1.00	1.00
R85B/HSV11	R-85B Hydrate Storage Bag Collector Stack	PM/PM_{10}	0.06	0.60
Aluminum Fluoride (AlF_3) Processing Area				
R81/SV0101	R-81 Spar Vessel Vent No. 1	PM/PM_{10}	0.32	1.37
R81/SV0201	R-81 Spar Vessel Vent No. 2	PM/PM_{10}	0.32	1.37
R81/SV0301	R-81 Spar Vessel Vent No. 3	PM/PM_{10}	0.32	1.37
R82/SHXX11	R-82 Spar Handling Bag Collector Stack	PM/PM_{10}	0.94	4.12
R83A/SAT01	R-83A Sulfuric Acid Tank Vent	H_2SO_4	1.00	1.00
R83B/SAT01	R-83B Sulfuric Acid Tank Vent	H_2SO_4	1.00	1.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

R83C/SAL01	R-83C Sulfuric Acid Lift Tank Vent	H_2SO_4	1.00	1.00
R83D/SAL01	R-83D Sulfuric Acid Lift Tank Vent	H_2SO_4	1.00	1.00
R84/AFEX11	R-84 Aluminum Fluoride Elevator Bag Collector Stack	PM/PM_{10}	0.34	1.49
R84/SF1611	R-84 WT Spar Feed Nos. 2, 3, 4, and 5 Bag Collector Stack	PM/PM_{10}	1.44	4.42
R84NA/HS01	R-84 Hydrate Vessel Vent No. 4	PM/PM_{10}	0.03	0.03
R84NB/HS01	R-84 Hydrate Vessel Vent No. 5	PM/PM_{10}	0.03	0.03
R84NC/HS01	R-84 Hydrate Vessel Vent No. 6	PM/PM_{10}	0.03	0.03
R84NZ/HS11	R-84 Hydrate Vessels Common Stack-North Bag Collector	PM/PM_{10}	0.03	0.03
R84SA/HS01	R-84 Hydrate Vessel Vent No. 1	PM/PM_{10}	0.03	0.03
R84SB/HS01	R-84 Hydrate Vessel Vent No. 2	PM/PM_{10}	0.03	0.03
R84SC/HS01	R-84 Hydrate Vessel Vent No. 3	PM/PM_{10}	0.03	0.03
R84SZ/HS11	R-84 Hydrate Storage Common Stack-South Bag Collector	PM/PM_{10}	0.03	0.03
R86Z/AFS11	R-86A and R-86B Aluminum Fluoride Storage Common Stack Bag Collector	PM/PM_{10}	0.08	0.08
Bulk Loading Dock				
R52/DOCK00	R-52 No. 30 Alumina Conveying Belt (5)	PM/Al_2O_3 PM_{10}	30.40 16.72	16.77 9.22
R51/ASVX11	R-51 Alumina Storage Vessel Bag Collector Stack	PM/PM_{10}	0.22	0.94
R53C/AGCX11	R-53C Air Gravity Conveyor Bag Collector Stack-North	PM/PM_{10}/$PM_{2.5}$	0.08	0.37
R53C/AGCX21	R-53C Air Gravity Conveyor Bag Collector Stack-South	PM/PM_{10}/$PM_{2.5}$	0.08	0.37
R52/BLCX21	R-52 Bulk Loading Chute-North Bag Collector Stack	PM/PM_{10}/$PM_{2.5}$/Al_2O_3	0.28	1.23

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

R52/BLCX31	R-52 Bulk Loading Chute-South Bag Collector Stack	$PM/PM_{10}/PM_{2.5}/Al_2O_3$	0.54	2.36
R52/BLCD11	R-52 Bulk Conveyor Transfer Bag Collector Stack	$PM/PM_{10}/PM_{2.5}$	0.27	1.20
R53C/SVX11	R-53C Alumina Storage Vessel Bag Collector Stack	$PM/PM_{10}/PM_{2.5}$	0.29	1.27
B60/AT0X01	B-60 Alumina Transfer Facility (5)	PM PM_{10}	6.0 3.0	2.40 1.20
B60/AFTX01	Aluminum Fluoride Transfer Facility (5)	PM PM_{10}	0.3 0.15	0.002 0.0008
R6C	Sodium Hydroxide Storage Tank	$PM/PM_{10}/PM_{2.5}$/NaOH	0.01	0.01
Miscellaneous				
B37/GXXX00	B-37 Garage (5)	VOC	1.00	1.00
B37/UOTX01	B-37 Used Oil Storage Tank Vent	VOC	1.00	1.00
B60/S00600	B-60 Smelting Lagoon (5)	VOC	1.00	1.00
R111/GXX00	R-111 Garage (5)	VOC	1.00	1.00
R148/SBN11	R-148 Sand Blasting Machine Shop-North Bag Collector Stack	PM/PM_{10}	0.50	0.30
R148/SBS11	R-148 Sand Blasting Machine Shop-South Bag Collector Stack	PM/PM_{10}	0.50	0.30
R148/MSX11	R-148 Machine Shop Sand Blasting Bag Collector Stack	PM/PM_{10}	1.00	1.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x	- total oxides of nitrogen
SO_2	- sulfur dioxide
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
H_2SO_4	- sulfuric acid
Hg	- mercury
NaOH	- sodium hydroxide
HCl	- hydrogen chloride
Cl	- chlorine
CO	- carbon monoxide
Al_2O_3	- alumina

(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) The emissions associated with the maintenance, startup, and shutdown (MSS) do not occur at the same time as operational emissions. The emissions are included in the annual emission rate for associated facilities.
(7) Annual compliance will be maintained on the sum of the emissions from the two types of transfer operations. Alcoa will maintain records of tons of spar transferred for each of the two transfer operations. Alcoa will use these tons transferred to verify that the annual limit for each pollutant is not exceeded.
(8) Annual compliance will be maintained on the sum of the emissions from the two 25A Washdown Tanks. Alcoa will maintain records of hours of operations for the two Washdown Tanks. The sum of the hours of operation from the two Washdown Tanks will not exceed 8760, as only one Washdown Tank is in operation at a given time. Alcoa will use the hours of operation to verify that the annual total limit for each pollutant is not exceeded.
(9) Annual compliance will be maintained on the sum of the emissions from the six 25A Slurry Tanks. Alcoa will maintain records of hours of operations for the six Slurry Tanks. The sum of the hours of operation from the six Slurry Tanks will not exceed 43,800, as only five Slurry Tanks are in operation at a given time. Alcoa will use the hours of operation to verify that the annual total limit for each pollutant is not exceeded.
(10) Annual compliance will be maintained on the sum of the emissions from the eight Boilers. Alcoa will maintain records of natural gas usage for the eight Boilers and hours of operation (for PM emissions). Alcoa will use the natural gas usage and hours of operation to verify that the annual total limit for each pollutant is not exceeded.
(11) Annual compliance will be maintained on the sum of the emissions from the four Calciners. Alcoa will maintain records of hours of operation for the four Calciners. The sum of the hours of operation from the three R55 Calciners will not exceed 24,300. The hours of operation for the R56 Calciner will not exceed

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

8,500. Alcoa will use the hours of operation to verify that the annual total limit for each pollutant is not exceeded.

Date: _____