

## 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	1.47	3.26
		PM <sub>10</sub>	0.69	1.54
		PM <sub>2.5</sub>	0.10	0.23
R10/ATBS11	R-10 A Tower Bauxite/Spar (5)	PM	0.11	0.24
		PM <sub>10</sub>	0.052	0.11
		PM <sub>2.5</sub>	0.0078	0.017
R10/BOSX10	Bauxite Conveyor Nos. 1 and 9 (5)	PM	18.20	12.20
		PM <sub>10</sub>	2.73	1.83
		PM <sub>2.5</sub>	2.73	1.83
R10/BHXX11	R-10 Bauxite Handling (5)	PM	0.20	0.45
		PM <sub>10</sub>	0.096	0.21
		PM <sub>2.5</sub>	0.014	0.032
R10/BHXX11	R-10 Bauxite Hopper-North (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R10/BHSX11	R-10 Bauxite Hopper-South (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029

Emission Sources - Maximum Allowable Emission Rates

R10/DSTX01	R-10 Diesel Storage Tank Vent	VOC	0.29	0.0062
R10/UOTX01	R-10 Used Oil Storage Tank Vent	VOC	0.0011	0.000006
R10/B33A10	R-10 Bauxite Transfer No. 3 Conveyor to No. 3A Belt (5)	PM	0.19	0.41
		PM <sub>10</sub>	0.088	0.20
		PM <sub>2.5</sub>	0.099	0.058
R10/B33B10	R-10 Bauxite Transfer No. 3 Conveyor to No. 3B Belt (5)	PM	0.19	0.41
		PM <sub>10</sub>	0.088	0.20
		PM <sub>2.5</sub>	0.099	0.058
R10/B39A10	R-10 Bauxite Transfer No. 3 Conveyor to No. 9A Belt (5)	PM	0.19	0.41
		PM <sub>10</sub>	0.088	0.20
		PM <sub>2.5</sub>	0.099	0.058
R10/B31610	R-10 Bauxite Transfer No. 3 Conveyor to No. 16 Belt (5)	PM	0.19	0.41
		PM <sub>10</sub>	0.088	0.20
		PM <sub>2.5</sub>	0.099	0.058
R10/B31510	R-10 Bauxite Transfer No. 3 Conveyor to No. 15 Belt (5)	PM	0.19	0.41
		PM <sub>10</sub>	0.088	0.20
		PM <sub>2.5</sub>	0.099	0.058
R10/BDS111	R-10 Bauxite Drop To Outside Storage No. 1 (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R10/BDS211	R-10 Bauxite Drop To Outside Storage No. 2 (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R10/BDS311	R-10 Bauxite Drop To Outside Storage No. 3 (5)	PM	0.18	0.40

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R10/SDOS00	R-10 Spar Drop to Outside Storage (5)	PM	0.0091	0.02
		PM <sub>10</sub>	0.0043	0.01
		PM <sub>2.5</sub>	0.0007	0.0014
R10/ST3D00	R-10 Spar Transfer No. 3 Conveyor to Drop (5)	PM	0.01	0.022
		PM <sub>10</sub>	0.0047	0.011
		PM <sub>2.5</sub>	0.0007	0.0016
R10/EC00	R-10 Bauxite Drop for Maintenance (5)	PM	0.0018	0.004
		PM <sub>10</sub>	0.0009	0.0019
		PM <sub>2.5</sub>	0.0001	0.0003
R15/BDXX11	R-15 Bauxite Drop-Inside Building (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R15/BFCX11	R-15 Building Bauxite Conveyor (5)	PM	0.091	0.40
		PM <sub>10</sub>	0.043	0.19
		PM <sub>2.5</sub>	0.0065	0.029
R15/DSTX01	R-15 Diesel Storage Tank Vent	VOC	0.40	0.0045
R16/BDXX11	R-16 Bauxite Drop-Inside Building (5)	PM	0.18	0.40
		PM <sub>10</sub>	0.086	0.19
		PM <sub>2.5</sub>	0.013	0.029
R16/BFCX11	R-16 Building Bauxite Conveyor (5)	PM	0.091	0.40
		PM <sub>10</sub>	0.043	0.19
		PM <sub>2.5</sub>	0.0065	0.029

Emission Sources - Maximum Allowable Emission Rates

R21/BTTX11	R-21 Transfer Tower-Bauxite (5)	PM	0.46	2.01
		PM <sub>10</sub>	0.22	0.95
		PM <sub>2.5</sub>	0.033	0.14
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	0.20	0.80
		PM <sub>10</sub>	0.20	0.80
		PM <sub>2.5</sub>	0.20	0.80
R25/PLS201	R-25 Process Lime Slaker No. 2 (spare) Vent	PM	0.20	0.80
		PM <sub>10</sub>	0.20	0.80
		PM <sub>2.5</sub>	0.20	0.80
R25/PLSX01	R-25 New Product Lime Slaker Vent	PM	0.20	0.80
		PM <sub>10</sub>	0.20	0.80
		PM <sub>2.5</sub>	0.20	0.80
R25/BFCX11	R-25 Building Bauxite Conveyor (R-25 Building) (5)	PM	0.91	4.00
		PM <sub>10</sub>	0.43	1.89
		PM <sub>2.5</sub>	0.065	0.29
R25/RM0102	R-25 Rod Mill Feed No. 1 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0202	R-25 Rod Mill Feed No. 2 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0302	R-25 Rod Mill Feed No. 3 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0402	R-25 Rod Mill Feed No. 4 Vent	VOC	0.12	0.43

Emission Sources - Maximum Allowable Emission Rates

		Hg	0.00009	0.0004
R25/RM0502	R-25 Rod Mill Feed No. 5 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0602	R-25 Rod Mill Feed No. 6 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0702	R-25 Rod Mill Feed No. 7 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0802	R-25 Rod Mill Feed No. 8 Vent	VOC	0.12	0.43
		Hg	0.00009	0.0004
R25/RM0101	R-25 Rod Mill No. 1 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0201	R-25 Rod Mill No. 2 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0301	R-25 Rod Mill No. 3 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0401	R-25 Rod Mill No. 4 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0501	R-25 Rod Mill No. 5 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0601	R-25 Rod Mill No. 6 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0701	R-25 Rod Mill No. 7 Vent	VOC	0.12	0.43
		Hg	0.0047	0.021
R25/RM0801	R-25 Rod Mill No. 8 Vent	VOC	0.12	0.43

Emission Sources - Maximum Allowable Emission Rates

		Hg	0.0047	0.021
R25/BM0101	Ball Mill 1 Entry Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25/BM0102	Ball Mill 1 Exit Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25/BM0201	Ball Mill 2 Entry Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25/BM0202	Ball Mill 2 Exit Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25/BM0301	Ball Mill 3 Entry Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25/BM0302	Ball Mill 3 Exit Vent	VOC	0.12	0.54
		Hg	0.00009	0.0004
R25A/PTN01	R-25A Needle Tank Vent	VOC	0.16	0.60
		Hg	0.00031	0.0014
R25A/S0101	R-25A Wash Down Slurry Tanks No. 1 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
R25A/S0201	R-25A Wash Down Slurry Tanks No. 2 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
	Total R-25A Slurry Tanks No.1 and 2 Vents	VOC	--	1.90
		Hg	--	0.0049
R25A/S0301	R-25A Slurry Tanks No. 3 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
R25A/S0401	R-25A Slurry Tanks No. 4 Vent	VOC	0.50	1.90

Emission Sources - Maximum Allowable Emission Rates

		Hg	0.0013	0.0049
R25A/S0501	R-25A Slurry Tanks No. 5 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
R25A/S0601	R-25A Slurry Tanks No. 6 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
R25A/S0701	R-25A Slurry Tanks No. 7 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
R25A/S0801	R-25A Slurry Tanks No. 8 Vent	VOC	0.50	1.90
		Hg	0.0013	0.0049
	Total R-25A Slurry Tank Nos. 3 thru 8 Vents	VOC	--	9.49
		Hg	--	0.025
R30/DVXX01	R-30 Digestion Vacuum Vent	VOC	5.95	22.60
		Hg	0.013	0.057
R30/L11X01	R-30 Low Temperature 1 Blow Off No. 1 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L11X02	R-30 Low Temperature 1 Blow Off No. 1 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L12X01	R-30 Low Temperature 1 Blow Off No. 2 Stack A	Hg	0.0005	0.0017

Emission Sources - Maximum Allowable Emission Rates

		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L12X02	R-30 Low Temperature 1 Blow Off No. 2 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L23X01	R-30 Low Temperature 2 Blow Off No. 3 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L23X02	R-30 Low Temperature 2 Blow Off No. 3 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L24X01	R-30 Low Temperature 2 Blow Off No. 4 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11



Emission Sources - Maximum Allowable Emission Rates

R30/L24X02	R-30 Low Temperature 2 Blow Off No. 4 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L35X01	R-30 Low Temperature 3 Blow Off No. 5 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L35X02	R-30 Low Temperature 3 Blow Off No. 5 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L36X01	R-30 Low Temperature 3 Blow Off No. 6 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L36X02	R-30 Low Temperature 3 Blow Off No. 6 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16

Emission Sources - Maximum Allowable Emission Rates

		VOC	0.029	0.11
R30/L47X01	R-30 Low Temperature 4 Blow Off No. 7 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L47X02	R-30 Low Temperature 4 Blow Off No. 7 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L48X01	R-30 Low Temperature 4 Blow Off No. 8 Stack A	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R30/L48X02	R-30 Low Temperature 4 Blow Off No. 8 Stack B	Hg	0.0005	0.0017
		PM	0.044	0.16
		PM <sub>10</sub>	0.044	0.16
		NaOH	0.044	0.16
		VOC	0.029	0.11
R31/RTXX01	R-31 Relief Tank (Unit 6) (5)	VOC	0.46	2.02
R33/RTXX01	R-33 Relief Tank (Unit 5) (5)	VOC	0.30	1.33
R40/HI0101	R-40 Heat Interchange Vacuum No. 1 Vent	VOC	0.033	0.12

Emission Sources - Maximum Allowable Emission Rates

		Hg	0.0003	0.0012
R40/HI0201	R-40 Heat Interchange Vacuum No. 2 Vent	VOC	0.033	0.12
		Hg	0.0003	0.0012
R40/HI0301	R-40 Heat Interchange Vacuum No. 3 Vent	VOC	0.033	0.12
		Hg	0.0003	0.0012
R40/HI0401	R-40 Heat Interchange Vacuum No. 4 Vent	VOC	0.033	0.12
		Hg	0.0003	0.0012
R40/HI0501	R-40 Heat Interchange Vacuum No. 5 Vent	VOC	0.033	0.12
		Hg	0.0003	0.0012
R40/HI0601	R-40 Heat Interchange Vacuum No. 6 Vent	VOC	0.033	0.12
		Hg	0.0003	0.0012
R42/HI7A01	R-42 Heat Interchange Vacuum No. 7 A Vent	VOC	0.12	0.22
		Hg	0.0012	0.0046
R42/01EV01	R-42 No. 1 Evaporation Vacuum Vent	VOC	0.015	0.047
		Hg	0.0006	0.0019
R42/02EV01	R-42 No. 2 Evaporation Vacuum Vent	VOC	0.015	0.047
		Hg	0.0006	0.0019
R42/03EV01	R-42 No. 3 Evaporation Vacuum Vent	VOC	0.015	0.047
		Hg	0.0006	0.0019
R42/04EV01	R-42 No. 4 Evaporation Vacuum Vent	VOC	0.015	0.047
		Hg	0.0006	0.0019
R42/06EV01	R-42 No. 6 Evaporation Vacuum Vent	VOC	0.015	0.047
		Hg	0.0006	0.0019
R111/UOT01	R-111 Used Oil Storage Tank Vent	VOC	0.006	0.00002

Emission Sources - Maximum Allowable Emission Rates

R60/LCDX11	R-60 Lime Conveyor Discharge Bag Collector Stack	PM	0.42	1.85
		PM <sub>10</sub>	0.42	1.85
		PM <sub>2.5</sub>	0.42	1.85
R60/LTXX11	R-60 Lime Transfer/Storage Bag Collector Stack	PM	2.46	10.80
		PM <sub>10</sub>	2.46	10.80
		PM <sub>2.5</sub>	2.46	10.80
Clarification Area				
R35J1/CN01	R-35J1 Causticizer Vent-North	PM	0.32	1.20
		PM <sub>10</sub>	0.32	1.20
		PM <sub>2.5</sub>	0.32	1.20
		NaOH	0.32	1.20
R35J1/CS01	R-35J1 Causticizer Vent-South	PM	0.32	1.20
		PM <sub>10</sub>	0.32	1.20
		PM <sub>2.5</sub>	0.32	1.20
		NaOH	0.32	1.20
R35/LTTX01	R-35 Low Temp Thickeners Vent	VOC	0.94	3.58
		Hg	0.0019	0.0082
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	VOC	0.16	0.62
		Hg	0.0004	0.0013
R35/HCLX11	R-35 HCl Acid Storage Tank Wet Scrubber Stack	HCl	0.12	0.53
R35M/D0100	R-35M Dredge Lake No. 1 (5)	PM	6.15	2.69

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	6.15	2.69
		PM <sub>2.5</sub>	6.15	2.69
R35M/D0200	R-35M Dredge Lake No. 2 (5)	PM	4.54	1.99
		PM <sub>10</sub>	4.54	1.99
		PM <sub>2.5</sub>	4.54	1.99
R35M/L0400	R-35M Lake No. 4 (5)	PM	13.90	6.07
		PM <sub>10</sub>	13.90	6.07
		PM <sub>2.5</sub>	13.90	6.07
R35M/LF300	R-35M Landfill Site III (5)	PM	2.47	1.08
		PM <sub>10</sub>	2.47	1.08
		PM <sub>2.5</sub>	2.47	1.08
R35M/RLX00	R-35M Recycle Lake (5)	PM	0.29	0.13
		PM <sub>10</sub>	0.29	0.13
		PM <sub>2.5</sub>	0.29	0.13
R35V/DFV11	R-35V Flocculent Vessel No. 1 Bag Collector Stack	PM	0.14	0.60
		PM <sub>10</sub>	0.14	0.60
		PM <sub>2.5</sub>	0.14	0.60
R35V/DFV21	R-35V Flocculent Vessel No. 2 Bag Collector Stack	PM	0.14	0.60
		PM <sub>10</sub>	0.14	0.60
		PM <sub>2.5</sub>	0.14	0.60
R35/STXX00	R-35 Secondary Thickeners Vent	VOC	0.94	3.58
		Hg	0.0019	0.0082
R35/WTAX00	R-35 Washer Train A Vents	VOC	1.26	3.58
		Hg	0.0001	0.0004

Emission Sources - Maximum Allowable Emission Rates

R35/WTBX00	R-35 Washer Train B Vents	VOC	1.26	3.58
		Hg	0.0001	0.0004
R35/FFT661	R-35 Floc Mix Tank 661 Vent	PM	0.0042	0.0045
		PM <sub>10</sub>	0.0042	0.0045
		PM <sub>2.5</sub>	0.0042	0.0045
R35/HP20	R-35 Floc Mix Tank HP20 Vent	PM	0.0095	0.024
		PM <sub>10</sub>	0.0095	0.024
		PM <sub>2.5</sub>	0.0095	0.024
R35M/CLX00	R-35M Clear Lake (5)	PM	0.08	0.035
		PM <sub>10</sub>	0.08	0.035
		PM <sub>2.5</sub>	0.08	0.035
R35M/L1X00	R-35M Lake No. 1 (5)	PM	3.13	1.37
		PM <sub>10</sub>	3.13	1.37
		PM <sub>2.5</sub>	3.13	1.37
R35M/L2X00	R-35M Lake No. 2 (5)	PM	8.53	3.74
		PM <sub>10</sub>	8.53	3.74
		PM <sub>2.5</sub>	8.53	3.74
R35M/L3X00	R-35M Lake No. 3 (5)	PM	10.60	4.64
		PM <sub>10</sub>	10.60	4.64
		PM <sub>2.5</sub>	10.60	4.64
R35M/RWX00	R-35M Raw Water Lake (5)	PM	0.23	0.10
		PM <sub>10</sub>	0.23	0.10
		PM <sub>2.5</sub>	0.23	0.10
R35M/SLX00	R-35M Storm Lake (5)	PM	1.79	0.78

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	1.79	0.78
		PM <sub>2.5</sub>	1.79	0.78
R35/PSBX00	R-35 Painting and Sand Blasting (5)	PM	3.38	2.27
		PM <sub>10</sub>	1.63	1.09
		PM <sub>2.5</sub>	0.16	0.11
		VOC	1.47	3.68
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	0.51	0.25
		PM <sub>10</sub>	0.51	0.25
		PM <sub>2.5</sub>	0.51	0.25
R38M/UOT01	R-38M Used Oil Storage Tank Vent	VOC	0.0077	0.00004
R42/HECV01	R-42 High Efficiency Causticization Relief Vessel Vent	PM	0.09	0.39
		PM <sub>10</sub>	0.09	0.39
		PM <sub>2.5</sub>	0.09	0.39
		VOC	0.07	0.31
		Hg	0.0011	0.0048
R42/HECP01	R-42 High Efficiency Causticization Vacuum Pump Vent	VOC	0.02	0.088
		Hg	0.0006	0.0026
R115/STP01	R-115 Sanitary Treatment Plant (5)	Cl <sub>2</sub>	0.0016	0.023
<b>Precipitation Area</b>				
R45/MSS	Precipitation Area MSS (6)	PM	4.15	7.90
		PM <sub>10</sub>	4.15	7.90
		PM <sub>2.5</sub>	4.15	7.90
		NaOH	4.15	7.90

Emission Sources - Maximum Allowable Emission Rates

R45A/C0101	R-45A Barometric Condenser Vent No. 1	VOC	0.0026	0.01
		Hg	0.0000009	0.000004
R45A/C0201	R-45A Barometric Condenser Vent No. 2	VOC	0.0026	0.01
		Hg	0.0000009	0.000004
R45A/C0301	R-45A Barometric Condenser Vent No. 3	VOC	0.0026	0.01
		Hg	0.0000009	0.000004
R45A/C0401	R-45A Barometric Condenser Vent No. 4	VOC	0.0026	0.01
		Hg	0.0000009	0.000004
R45/PAVX00	R-45 Precipitation Area Vessels (5)	PM	11.60	50.90
		PM <sub>10</sub>	11.60	50.90
		PM <sub>2.5</sub>	11.60	50.90
		NaOH	11.60	50.90
		VOC	0.95	3.60
		Hg	0.0027	0.01
R45/DSTX01	R-45 Diesel Storage Tank Vent	VOC	0.072	0.0006
R45/OSVX11	R-45 Oxalate System Vessel Bag Collector Stack	PM	0.051	0.22
		PM <sub>10</sub>	0.051	0.22
		PM <sub>2.5</sub>	0.051	0.22
R45/GSTX01	R-45 Gasoline Storage Tank Vent	VOC	0.75	0.86
R45/NAHS	R-45 Sodium Hydrosulfide Tank Scrubber Vent	H <sub>2</sub> S	0.0057	0.00034
R45/CMT101	R-45 Crystal Growth Modifier Product Tank Vent	VOC	13.80	0.38
<b>Power House Area</b>				
R110/CVA01	R-110 Condensate Vessel A Vent	VOC	0.0024	0.009



Emission Sources - Maximum Allowable Emission Rates

		Hg	0.000005	0.00002
R110/CVD01	R-110 Condensate Vessel D Vent	VOC	0.0024	0.009
		Hg	0.000005	0.00002
R110/40X01	R-110 40 lbs Deaerator Vent A	VOC	2.00	7.59
		Hg	0.0032	0.012
R110/40X02	R-110 40 lbs Deaerator Vent B	VOC	2.00	7.59
		Hg	0.0032	0.012
R110/40X03	R-110 40 lbs Deaerator Vent C	VOC	2.00	7.59
		Hg	0.0032	0.012
R110/HP101	R-110 High Pressure Boiler No. 1 Stack	VOC	0.44	1.93
		PM	4.43	19.40
		PM <sub>10</sub>	4.43	19.40
		PM <sub>2.5</sub>	4.43	19.40
		NO <sub>x</sub>	65.90	288.50
		CO	37.50	164.40
		SO <sub>2</sub>	2.32	10.20
R110/HP201	R-110 High Pressure Boiler No. 2 Stack	VOC	0.35	1.53
		PM	3.54	15.51
		PM <sub>10</sub>	3.54	15.51
		PM <sub>2.5</sub>	3.54	15.51
		NO <sub>x</sub>	38.80	169.80
		CO	27.60	120.80
		SO <sub>2</sub>	1.86	8.20
R110/HP301	R-110 High Pressure Boiler No. 3 Stack	VOC	0.35	1.53

Emission Sources - Maximum Allowable Emission Rates

		PM	3.54	15.50
		PM <sub>10</sub>	3.54	15.50
		PM <sub>2.5</sub>	3.54	15.50
		NO <sub>x</sub>	34.40	150.70
		CO	15.00	65.80
		SO <sub>2</sub>	1.86	8.20
R110/HP411	R-110 High Pressure Boiler No. 4 Stack	VOC	0.35	1.53
		PM	3.54	15.50
		PM <sub>10</sub>	3.54	15.50
		PM <sub>2.5</sub>	3.54	15.50
		NO <sub>x</sub>	38.80	169.80
		CO	27.60	120.80
		SO <sub>2</sub>	1.86	8.20
R110/HP501	R-110 High Pressure Boiler No. 5 Stack	VOC	0.44	1.92
		PM	4.43	19.40
		PM <sub>10</sub>	4.43	19.40
		PM <sub>2.5</sub>	4.43	19.40
		NO <sub>x</sub>	51.90	227.19
		CO	38.20	167.40
		SO <sub>2</sub>	2.32	10.20
R110/HP611	R-110 High Pressure Boiler No. 6 Stack	VOC	0.50	2.17
		PM	4.94	21.68
		PM <sub>10</sub>	4.94	21.68
		PM <sub>2.5</sub>	4.94	21.68

Emission Sources - Maximum Allowable Emission Rates

		NO <sub>x</sub>	22.90	100.20
		CO	14.10	61.80
		SO <sub>2</sub>	2.59	11.34
R110/LP101	R-110 Low Pressure Boiler No. 1 Stack	VOC	0.25	1.10
		PM	2.84	12.44
		PM <sub>10</sub>	2.84	12.44
		PM <sub>2.5</sub>	2.84	12.44
		NO <sub>x</sub>	26.50	115.90
		CO	22.20	97.32
		SO <sub>2</sub>	1.31	5.74
R110/LP201	R-110 Low Pressure Boiler No. 2 Stack	VOC	0.25	1.10
		PM	2.84	12.44
		PM <sub>10</sub>	2.84	12.44
		PM <sub>2.5</sub>	2.84	12.44
		NO <sub>x</sub>	21.30	115.94
		CO	76.70	335.95
		SO <sub>2</sub>	1.31	5.74
	Total of all boiler stacks (High Pressure Boilers Nos. 1 through 6 and Low Pressure Boilers Nos. 1 through 2)	VOC	--	10.27
		PM	--	99.83
		PM <sub>10</sub>	--	99.83
		PM <sub>2.5</sub>	--	99.83
		NO <sub>x</sub>	--	942.19
		CO	--	737.88
		SO <sub>2</sub>	--	50.21

Emission Sources - Maximum Allowable Emission Rates

R110/BTV01	R-110 HPD 1 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/BTV02	R-110 HPD 2 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/BTV03	R-110 HPD 3 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/BTV04	R-110 HPD 4 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/BTV05	R-110 HPD 5 & 6 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/LPTV1	R-110 LPD 1 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/LPTV2	R-110 LPD 2 Blowdown Tank Vent	PM	0.47	0.086
		PM <sub>10</sub>	0.47	0.086
		PM <sub>2.5</sub>	0.47	0.086
R110/05D01	R-110 5-lb Deaerator Vent	VOC	0.0002	0.0007
		Hg	0.0007	0.0026
R110/95D01	R-110 95-lb Deaerator Vent	VOC	0.066	0.29

Emission Sources - Maximum Allowable Emission Rates

		Hg	0.0003	0.0013
R110/CTX01	R-110 Cooling Tower (5)	PM	0.11	0.47
		PM <sub>10</sub>	0.11	0.47
		PM <sub>2.5</sub>	0.11	0.47
Calcination Area				
R55-1/FC11	R-55-1 Flash Calciner Smelter Grade Alumina (SGA) Electrostatic Precipitator (ESP) Stack	VOC	14.70	35.90
		PM	33.90	82.00
		PM <sub>10</sub>	33.90	82.00
		PM <sub>2.5</sub>	33.90	82.00
		NO <sub>x</sub>	12.60	47.80
		CO	151.00	438.00
		SO <sub>2</sub>	1.43	6.88
		Hg	0.0091	0.04
R55-1/FC11	R-55-1 Flash Calciner Hard Burn Alumina (HBA) ESP Stack	VOC	3.36	35.90
		PM	33.90	82.00
		PM <sub>10</sub>	33.90	82.00
		PM <sub>2.5</sub>	33.90	82.00
		NO <sub>x</sub>	27.90	47.80
		CO	33.60	438.00
		SO <sub>2</sub>	1.43	6.88
		Hg	0.0091	0.04
R55-1/FCMSS	R55-1 Flash Calciner MSS (6)	PM	9.51	0.044
		PM <sub>10</sub>	9.51	0.044
		PM <sub>2.5</sub>	9.51	0.044

Emission Sources - Maximum Allowable Emission Rates

R55-2/FC11	R-55-2 Flash Calciner SGA ESP Stack	VOC	16.20	35.90
		PM	18.90	82.00
		PM <sub>10</sub>	18.90	82.00
		PM <sub>2.5</sub>	18.90	82.00
		NO <sub>x</sub>	13.90	47.80
		CO	166.00	438.00
		SO <sub>2</sub>	1.57	6.88
		Hg	0.0091	0.04
R55-2/FC11	R-55-2 Flash Calciner HBA ESP Stack	VOC	3.36	35.90
		PM	37.70	82.00
		PM <sub>10</sub>	37.70	82.00
		PM <sub>2.5</sub>	37.70	82.00
		NO <sub>x</sub>	27.90	47.80
		CO	33.60	438.00
		SO <sub>2</sub>	1.43	6.88
		Hg	0.0091	0.04
R55-2/FCMSS	R55-2 Flash Calciner MSS (6)	PM	9.51	0.044
		PM <sub>10</sub>	9.51	0.044
		PM <sub>2.5</sub>	9.51	0.044
R55-3/FC11	R-55-3 Flash Calciner SGA ESP Stack	VOC	16.20	35.90
		PM	18.90	82.00
		PM <sub>10</sub>	18.90	82.00
		PM <sub>2.5</sub>	18.90	82.00
		NO <sub>x</sub>	13.90	47.80

Emission Sources - Maximum Allowable Emission Rates

		CO	166.00	438.00
		SO <sub>2</sub>	1.57	6.88
		Hg	0.0091	0.04
R55-3/FC11	R-55-3 Flash Calciner HBA ESP Stack	VOC	3.36	35.90
		PM	33.90	82.00
		PM <sub>10</sub>	33.90	82.00
		PM <sub>2.5</sub>	33.90	82.00
		NO <sub>x</sub>	27.90	47.80
		CO	33.60	438.00
		SO <sub>2</sub>	1.43	6.88
		Hg	0.0091	0.04
R55-3/FCMSS	R55-3 Flash Calciner MSS (6)	PM	9.51	0.044
		PM <sub>10</sub>	9.51	0.044
		PM <sub>2.5</sub>	9.51	0.044
R56-4/FC11	R-56-4 Flash Calciner SGA ESP Stack	VOC	30.10	76.20
		PM	8.04	19.40
		PM <sub>10</sub>	8.04	19.40
		PM <sub>2.5</sub>	8.04	19.40
		NO <sub>x</sub>	40.00	134.00
		CO	77.50	253.00
		SO <sub>2</sub>	2.93	12.40
		Hg	0.018	0.078
R56-4/FCMSS	R56-4 Flash Calciner MSS (6)	PM	9.51	0.135
		PM <sub>10</sub>	9.51	0.135

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	9.51	0.135
	Total of calcination department (EPNs: R55-1/FC11, R55-2/FC11 , R55-3/FC11, and R56-4/FC11)	VOC	--	176.00
		PM	--	247.00
		PM <sub>10</sub>	--	247.00
		PM <sub>2.5</sub>		247.00
		NO <sub>x</sub>	--	266.00
		CO	--	1469.00
		SO <sub>2</sub>	--	30.99
		Hg		0.19
R55-1/DB11	R-55-1 Flash Calciner Disengaging Box Bag Collector Stack	PM	0.082	0.30
		PM <sub>10</sub>	0.041	0.15
		PM <sub>2.5</sub>	0.041	0.15
R55-2/DB11	R-55-2 Flash Calciner Disengaging Box Bag Collector Stack	PM	0.082	0.30
		PM <sub>10</sub>	0.041	0.15
		PM <sub>2.5</sub>	0.041	0.15
R55-3/DB11	R-55-3 Flash Calciner Disengaging Box Bag Collector Stack	PM	0.082	0.30
		PM <sub>10</sub>	0.041	0.15
		PM <sub>2.5</sub>	0.041	0.15
R55/01DB12	R-55-(1-2-3) Disengaging Box-Spare Bag Collector Stack	PM	0.43	1.88
		PM <sub>10</sub>	0.43	1.88
		PM <sub>2.5</sub>	0.43	1.88
R55/ESP211	R-55 ESP Dust Redigest Tank No. 2 Wet Scrubber Vent	PM	0.06	0.24
		PM <sub>10</sub>	0.03	0.12
		PM <sub>2.5</sub>	0.03	0.12



Emission Sources - Maximum Allowable Emission Rates

R56/ESP11	R-56 ESP Dust Redigest Tank No. 1 Wet Scrubber Vent	PM	0.04	0.17
		PM <sub>10</sub>	0.02	0.083
		PM <sub>2.5</sub>	0.02	0.083
R55/HF1401	R-55 Horizontal Filter Nos. 1, 2, 3, and 4 Vent	VOC	4.96	21.7
		Hg	0.0032	0.014
R55HFX00	R-55 Horizontal Filter Nos. 1, 2, 3, and 4 Fugitives (5)	VOC	0.25	1.09
		Hg	0.0002	0.0007
R56/HF1201	R-56 Horizontal Filter No. 1 Vent	VOC	2.90	12.10
		Hg	0.0019	0.0078
R56HFX00	R-56 Horizontal Filter Fugitives (5)	VOC	0.15	0.60
		Hg	0.00009	0.0004
R56/ESP211	R-56 ESP Dust Redigest Tank No. 2 Wet Scrubber Vent	PM	0.04	0.17
		PM <sub>10</sub>	0.02	0.083
		PM <sub>2.5</sub>	0.02	0.083
R56/HSRX01	R-56 Hydrate Storage Drop to Conveyor (5)	PM	2.20	1.45
R56/HSRX02	R-56 Hydrate Storage Drop to Stockpile (5)	PM	2.20	1.45
R56/HSRX03	R-56 Hydrate Storage Stockpile (5)	PM	2.20	1.45
R56/HRCX21	R-56 Hydrate Railcar Loading Drop from Loader Bucket Into Conveyor Hopper (5)	PM	2.20	1.45
R56/HRCX22	R-56 Hydrate Railcar Loading Drop from Hopper to Conveyor (5)	PM	2.20	1.45
R56/HRCX23	R-56 Hydrate Railcar Loading Conveyor Drop into Railcar (5)	PM	2.20	1.45
R56/HTLX31	R-56 Hydrate Truck Loading Drop from Loader Bucket into Truck (5)	PM	3.60	1.45
R56-4/CT01	R-56-4 Cooling Tower (5)	PM	0.028	0.12

## Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.028	0.12
		PM <sub>2.5</sub>	0.028	0.12
		NaOH	0.028	0.12
R55/ESPD11	R-55-ESP Dust Redigest Tank No. 1 Wet Scrubber Vent	PM	0.06	0.24
		PM <sub>10</sub>	0.03	0.12
		PM <sub>2.5</sub>	0.03	0.12
R55/WFCF01	R-55 Wet Filter Cake Facility - Drop from Conveyor to Pad (5)	PM	1.20	1.45
PR6/WFC01	PR6 WFC Storage Facility from Truck to WFC Pile North-end (5)	PM	0.60	0.09
PR6/WFC02	PR6 WFC Storage Facility from Truck to WFC Pile South-end (5)	PM	0.60	0.09
PR6/WFC03	PR6 WFC Storage Facility from Loader Bucket to Truck North-end (5)	PM	0.60	0.09
PR6/WFC04	PR6 WFC Storage Facility from Loader Bucket to Truck South-end (5)	PM	0.60	0.09
<b>Product Transport System</b>				
R50/07AG11	R-50 No. 7 Air Gravity Conveyor Bag Collector Stack	PM	0.12	0.38
		PM <sub>10</sub>	0.061	0.19
		PM <sub>2.5</sub>	0.061	0.19
R50/09AG11	R-50 No. 9 Air Gravity Conveyor Bag Collector Stack	PM	0.075	0.33
		PM <sub>10</sub>	0.075	0.33
		PM <sub>2.5</sub>	0.075	0.33
R50/02AG21	R-50 No. 2 Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.12	0.38
		PM <sub>10</sub>	0.061	0.19
		PM <sub>2.5</sub>	0.061	0.19
R50/03AG21	R-50 No. 3 Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.12	0.38
		PM <sub>10</sub>	0.061	0.19

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	0.061	0.19
R50/04AG21	R-50 No. 4 Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.26	1.16
		PM <sub>10</sub>	0.26	1.16
		PM <sub>2.5</sub>	0.26	1.16
R50/08AG11	R-50 No. 8 Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.12	0.38
		PM <sub>10</sub>	0.061	0.19
		PM <sub>2.5</sub>	0.061	0.19
R50/2EAG11	R-50 No. 2E Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.26	1.16
		PM <sub>10</sub>	0.26	1.16
		PM <sub>2.5</sub>	0.26	1.16
R50/3EAG11	R-50 No. 3E Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.26	1.16
		PM <sub>10</sub>	0.26	1.16
		PM <sub>2.5</sub>	0.26	1.16
R50/4EAG11	R-50 No. 4E Air Gravity Conveyor - Alumina Bag Collector Stack	PM	0.26	1.16
		PM <sub>10</sub>	0.26	1.16
		PM <sub>2.5</sub>	0.26	1.16
R50/A1XX11	R-50 Alumina Handling (A) Bag Collector Stack	PM	0.42	1.86
		PM <sub>10</sub>	0.42	1.86
		PM <sub>2.5</sub>	0.42	1.86
R50/A2XX11	R-50 Alumina Handling (B) Bag Collector Stack	PM	0.36	1.57
		PM <sub>10</sub>	0.36	1.57
		PM <sub>2.5</sub>	0.36	1.57
R53/RCUX11	R-53 Railcar Unloading Bag Collector Stack	PM	1.37	6.01
		PM <sub>10</sub>	1.37	6.01

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	1.37	6.01
R51C/AVX11	R-51C Alumina Storage Vessel Bag Collector Stack	PM	0.96	4.20
		PM <sub>10</sub>	0.96	4.20
		PM <sub>2.5</sub>	0.96	4.20
R51E/05L11	R-51E No. 5 Track Loading- Alumina Bag Collector Stack	PM	0.49	2.15
		PM <sub>10</sub>	0.49	2.15
		PM <sub>2.5</sub>	0.49	2.15
R51E/SPV11	R-51E Alumina Special Products Vessel Bag Collector Stack	PM	0.74	3.23
		PM <sub>10</sub>	0.74	3.23
		PM <sub>2.5</sub>	0.74	3.23
R51E/SVX11	R-51E Alumina Storage Vessel Bag Collector Stack	PM	0.45	1.96
		PM <sub>10</sub>	0.45	1.96
		PM <sub>2.5</sub>	0.45	1.96
R51/02TL11	R-51 Track No. 2 Loading-Alumina Bag Collector Stack	PM	1.42	6.20
		PM <sub>10</sub>	1.42	6.20
		PM <sub>2.5</sub>	1.42	6.20
		Al <sub>2</sub> O <sub>3</sub>	1.42	6.20
R51/03TL11	R-51 Track No. 3 Loading-Alumina Bag Collector Stack	PM	1.42	6.20
		PM <sub>10</sub>	1.42	6.20
		PM <sub>2.5</sub>	1.42	6.20
		Al <sub>2</sub> O <sub>3</sub>	1.42	6.20
R53C/40B11	R-53C 40 Belt Head Pulley Bag Collector Stack	PM	0.17	0.76
		PM <sub>10</sub>	0.17	0.76
		PM <sub>2.5</sub>	0.17	0.76

Emission Sources - Maximum Allowable Emission Rates

R53C/ATS11	R-53C Transfer and Storage Bag Collector Stack	PM	0.13	0.55
		PM <sub>10</sub>	0.13	0.55
		PM <sub>2.5</sub>	0.13	0.55
R56/AHC221	R-56 Alumina Handling Conveyor No. 2 Tail No. 1 Bag Collector Stack	PM	0.13	0.56
		PM <sub>10</sub>	0.13	0.56
		PM <sub>2.5</sub>	0.13	0.56
R56/AHC231	R-56 Alumina Handling Conveyor No. 2 Tail No. 2 Bag Collector Stack	PM	0.13	0.56
		PM <sub>10</sub>	0.13	0.56
		PM <sub>2.5</sub>	0.13	0.56
R56/AHC211	R-56 Alumina Handling Conveyor No. 2 Head Pulley Bag Collector Stack	PM	0.13	0.56
		PM <sub>10</sub>	0.13	0.56
		PM <sub>2.5</sub>	0.13	0.56
		Al <sub>2</sub> O <sub>3</sub>	0.13	0.56
C30 Hydrate Process Area				
R85/HD0111	R-85 No. 1 Hydrate Dryer Wet Scrubber Vent	PM	0.30	1.31
		PM <sub>10</sub>	0.30	1.31
		PM <sub>2.5</sub>	0.30	1.31
R85/HD0211	R-85 No. 2 Hydrate Dryer Wet Scrubber Vent	PM	0.30	1.31
		PM <sub>10</sub>	0.30	1.31
		PM <sub>2.5</sub>	0.30	1.31
R85/HH0211	R-85 Hydrate Handling No. 2 Bag Collector Stack	PM	0.39	1.70
		PM <sub>10</sub>	0.39	1.70
		PM <sub>2.5</sub>	0.39	1.70
R85/HH0111	R-85 Hydrate Handling No. 1 Bag Collector Stack	PM	0.39	1.70

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.39	1.70
		PM <sub>2.5</sub>	0.39	1.70
R85/OSLX00	R-85 On Shore Lagoon (5)	PM	0.032	0.014
		PM <sub>10</sub>	0.032	0.014
		PM <sub>2.5</sub>	0.032	0.014
R85/HF01	R-85 Horizontal Filter No. 1 Vent	VOC	0.50	2.18
		Hg	0.0003	0.0014
R85/HF02	R-85 Horizontal Filter No. 2 Vent	VOC	0.50	2.18
		Hg	0.0003	0.0014
R85/HFXX01	R-85 Horizontal Filter No. 1 Fugitives (5)	VOC	0.025	0.11
		Hg	0.00002	0.00007
R85/HFXX02	R-85 Horizontal Filter No. 2 Fugitives (5)	VOC	0.025	0.11
		Hg	0.00002	0.00007
Aluminum Fluoride (AlF <sub>3</sub> ) Processing Area				
R81/SV0101	R-81 Spar Vessel Vent No. 1	PM	0.37	1.64
		PM <sub>10</sub>	0.37	1.64
		PM <sub>2.5</sub>	0.37	1.64
R81/SV0201	R-81 Spar Vessel Vent No. 2	PM	0.37	1.64
		PM <sub>10</sub>	0.37	1.64
		PM <sub>2.5</sub>	0.37	1.64
R81/SV0301	R-81 Spar Vessel Vent No. 3	PM	0.37	1.64
		PM <sub>10</sub>	0.37	1.64
		PM <sub>2.5</sub>	0.37	1.64
R82/SHXX11	R-82 Spar Handling Bag Collector Stack	PM	0.94	4.13

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.94	4.13
		PM <sub>2.5</sub>	0.94	4.13
R83A/SAT01	R-83A Sulfuric Acid Tank Vent	H <sub>2</sub> SO <sub>4</sub>	1.00	1.00
R83B/SAT01	R-83B Sulfuric Acid Tank Vent	H <sub>2</sub> SO <sub>4</sub>	1.00	1.00
R83C/SAL01	R-83C Sulfuric Acid Lift Tank Vent	H <sub>2</sub> SO <sub>4</sub>	1.00	1.00
R84/AFEX11	R-84 Aluminum Fluoride Elevator Bag Collector Stack	PM	0.34	1.48
		PM <sub>10</sub>	0.34	1.48
		PM <sub>2.5</sub>	0.34	1.48
R84NA/HS01	R-84 Hydrate Vessel Vent No. 4	PM	0.03	0.013
		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84NB/HS01	R-84 Hydrate Vessel Vent No. 5	PM	0.03	0.013
		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84NC/HS01	R-84 Hydrate Vessel Vent No. 6	PM	0.03	0.013
		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84NZ/HS11	R-84 Hydrate Vessels Common Stack-North Bag Collector	PM	0.82	3.59
		PM <sub>10</sub>	0.82	3.59
		PM <sub>2.5</sub>	0.82	3.59
R84SA/HS01	R-84 Hydrate Vessel Vent No. 1	PM	0.03	0.013
		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84SB/HS01	R-84 Hydrate Vessel Vent No. 2	PM	0.03	0.013

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84SC/HS01	R-84 Hydrate Vessel Vent No. 3	PM	0.03	0.013
		PM <sub>10</sub>	0.012	0.0052
		PM <sub>2.5</sub>	0.012	0.0052
R84SZ/HS11	R-84 Hydrate Storage Common Stack-South Bag Collector	PM	0.82	3.59
		PM <sub>10</sub>	0.82	3.59
		PM <sub>2.5</sub>	0.82	3.59
R86Z/AFS11	R-86A and R-86B Aluminum Fluoride Storage Common Stack Bag Collector	PM	0.56	2.44
		PM <sub>10</sub>	0.56	2.44
		PM <sub>2.5</sub>	0.56	2.44
Bulk Loading Dock				
R52/DOCK00	Marine Bulk Loading Operations (5)	PM	11.51	4.29
		PM <sub>10</sub>	5.45	2.03
		PM <sub>2.5</sub>	0.82	0.31
		Al <sub>2</sub> O <sub>3</sub>	11.51	4.29
R51/ASVX11	R-51 Alumina Storage Vessel Bag Collector Stack	PM	0.21	0.94
		PM <sub>10</sub>	0.21	0.94
		PM <sub>2.5</sub>	0.21	0.94
R53C/AGCX11	R-53C Air Gravity Conveyor Bag Collector Stack-North	PM	0.08	0.37
		PM <sub>10</sub>	0.08	0.37
		PM <sub>2.5</sub>	0.08	0.37
R53C/AGCX21	R-53C Air Gravity Conveyor Bag Collector Stack-South	PM	0.08	0.37
		PM <sub>10</sub>	0.08	0.37



Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	0.08	0.37
R52/BLCX21	R-52 Bulk Loading Chute-North Bag Collector Stack	PM	0.28	1.22
		PM <sub>10</sub>	0.28	1.22
		PM <sub>2.5</sub>	0.28	1.22
		Al <sub>2</sub> O <sub>3</sub>	0.28	1.22
R52/BLCX31	R-52 Bulk Loading Chute-South Bag Collector Stack	PM	0.56	2.44
		PM <sub>10</sub>	0.56	2.44
		PM <sub>2.5</sub>	0.56	2.44
		Al <sub>2</sub> O <sub>3</sub>	0.56	2.44
R52/BLCD11	R-52 Bulk Conveyor Transfer Bag Collector Stack	PM	0.28	1.22
		PM <sub>10</sub>	0.28	1.22
		PM <sub>2.5</sub>	0.28	1.22
R53C/SVX11	R-53C 40 Belt Tail Pulley Bag Collector Stack	PM	0.07	0.31
		PM <sub>10</sub>	0.07	0.31
		PM <sub>2.5</sub>	0.07	0.31
B60/ATOX01	B-60 Barge Loading Area - Wet Filter Cake Loading (5)	PM	3.60	3.48
B60/ATOX02	B-60 Barge Loading Area - Alumina Loading (5)	PM	6.00	2.40
		PM <sub>10</sub>	3.00	1.20
		PM <sub>2.5</sub>	3.00	1.20
R6C	Sodium Hydroxide Storage Tank Vent	PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		NaOH	0.01	0.01
R56/DCS01	Screw Conveyor Point 1 (5)	PM	0.23	0.97

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
R56/DCS02	Screw Conveyor Point 2 (5)	PM	0.23	0.97
		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
R56/DCS03	Screw Conveyor Point 3 (5)	PM	0.23	0.97
		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
R56/DCS04	Screw Conveyor Discharge Point 4 (5)	PM	0.23	0.97
		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
R56/DCS05	Screw Conveyor Discharge Leg Point 5 (5)	PM	0.23	0.97
		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
R56/DCS06	Screw Conveyor Knife Gas Point 6 (5)	PM	0.23	0.97
		PM <sub>10</sub>	0.23	0.97
		PM <sub>2.5</sub>	0.23	0.97
Miscellaneous				
B37/GXXX00	B-37 Garage (5)	VOC	0.85	0.93
B37/UOTX01	B-37 Used Oil Storage Tank Vent	VOC	0.0052	0.00002
B60/S00600	B-60 Smelting Lagoon (5)	PM	0.032	0.014
		PM <sub>10</sub>	0.032	0.014
		PM <sub>2.5</sub>	0.032	0.014
R111/GXX00	R-111 Garage (5)	VOC	0.85	0.93

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)

VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO <sub>x</sub>	- total oxides of nitrogen
SO <sub>2</sub>	- sulfur dioxide
PM	- total particulate matter, suspended in the atmosphere, including PM <sub>10</sub> and PM <sub>2.5</sub> , as represented
PM <sub>10</sub>	- total particulate matter equal to or less than 10 microns in diameter, including PM <sub>2.5</sub> , as represented
PM <sub>2.5</sub>	- particulate matter equal to or less than 2.5 microns in diameter
H <sub>2</sub> SO <sub>4</sub>	- sulfuric acid
Hg	- mercury
NaOH	- sodium hydroxide
HCl	- hydrogen chloride
Cl <sub>2</sub>	- chlorine
CO	- carbon monoxide
Al <sub>2</sub> O <sub>3</sub>	- aluminum oxide
H <sub>2</sub> S	- hydrogen sulfide
- (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.

Date: September 9, 2013