

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. 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	TPY
Existing sources with name change				
R10/GDCX01	R-10 Gantry Drop to Conveyor- Bauxite/Spar (4)	PM	1.48	3.28
		PM ₁₀	0.70	1.55
R10/ATBS11	R-10-A Tower Bauxite/Spar (4)	PM	0.10	0.05
		PM ₁₀	0.05 0.02	
R10/BOSX10	R-10-Bauxite from Outside Storage (4)	PM	29.57	16.10
		PM ₁₀	4.44	2.41
R10/BHXX11	R-10-Bauxite Handling (4)	PM	0.05	<0.01
		PM ₁₀	0.03 <0.01	
R10/BHXX11	R-10-Bauxite Hopper-North (4)	PM	0.03	0.03
		PM ₁₀	0.01 0.02	
R10/BHSX11	R-10-Bauxite Hopper-South (4)	PM	0.03	0.03
		PM ₁₀	0.01 0.02	
R21/BTTX11	R-21-Transfer Tower-Bauxite (4)	PM		0.40
		PM ₁₀	0.38 0.19	
R25/BFCX11	R-25-Building Bauxite Conveyor (4)	PM	0.80	<0.01
		PM ₁₀	0.38 <0.01	
R30/DVXX01	R-30-Digestion Vacuum Vent	Hg	0.0017	0.007
		VOC	5.95 22.62	

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AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R35/LTTX01	R-35-Low Temp Thickeners Vent	Hg		0.07
		0.27		
	VOC	1.18	4.48	
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
R35V/FCX01	R-35V-Flocculent Tank - North No. 1 Vent	VOC	3.59	0.37
R35/HTTX01	R-35-High Temp Thickeners Vent	Hg		0.0004
		0.001		
	VOC	0.16	0.62	
R35J1/CN01	R-35J1-Causticizer Vent - North	PM ₁₀		0.27
		1.20		
	NaOH	0.27	0.27	
R35J1/CS01	R-35J1-Causticizer Vent - South	PM ₁₀		0.27
		1.20		
	NaOH	0.27	1.20	
R42/HI7A01	R-42-Heat Interchange Vacuum	Hg		0.0031
		0.012		
	No. 7 A Vent	VOC	0.32	1.20
R42/03EV01	R-42-No.3 Evaporation Vacuum Vent	Hg	0.0006	0.002
		VOC	0.02	0.05
R42/01EV01	R-42-No. 1 Evaporation Vacuum Vent	Hg	0.0006	0.002
		VOC	0.02	0.05

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R42/02EV01	R-42-No. 2 Evaporation Vacuum Vent	Hg	0.0006	0.002
		VOC	0.02	0.05
R42/04EV01	R-42-No. 4 Evaporation Vacuum Vent	Hg	0.0006	0.002
		VOC	0.02	0.05
R42/06EV01	R-42-No. 6 Evaporation Vacuum Vent	Hg	0.0006	0.002
		VOC	0.02	0.05
R110/CVA01	R-110-Condensate Vessel A Vent	Hg	<0.0001	<0.001
		VOC	<0.01	<0.01
R110/CVD01	R-110-Condensate Vessel D Vent	Hg	<0.0001	<0.001
		VOC	<0.01	<0.01
R110/40X01	R-110-40lbs Deaerator Vent A	Hg	0.0032	0.01
		VOC	2.00	7.59
R110/40X02	R-110-40lbs Deaerator	Hg	0.0032	0.01
		VOC	2.00	7.59
R110/40X03	R-110-40lbs Deaerator Vent C	Hg	0.0032	0.01
		VOC	2.00	7.59
R51/No. 2TL11	R-51-Track No. 2 Loading-Al ₂ O ₃ Bag Collector	PM ₁₀		1.42
		6.20	1.42	6.20
R51/No. 3TL11	R-51-Track No. 3 Loading-Al ₂ O ₃ Bag Collector	PM ₁₀		1.42
		6.20	1.42	6.20
R53C/40B11	R-53C-Al ₂ O ₃ Conveyor No. 40 Belt to R-53C Bag Collector	PM ₁₀	0.56	2.07
		Al ₂ O ₃	0.56	2.07
R53C/ATS11	R-53C-Transfer and Storage	PM ₁₀	2.04	8.86

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	Bag Collector	Al ₂ O ₃	2.04	8.86
R52/BLCX31	R-52-Bulk Loading Chute-South	PM ₁₀		1.35
	Bag Collector	Al ₂ O ₃	1.35	0.46
R52/BLCX41	R-52-Loading Chute-Top	PM ₁₀	0.34	0.46
	Bag Collector	Al ₂ O ₃	0.34	0.46
R52/BLCX11	R-52-Loading Chute-Choke	PM ₁₀	0.20	0.27
	Feeder-North Bag Collector	Al ₂ O ₃	0.20	0.27
R52/DOCK00	R-52 Dock Upset reporting (4)	PM	30.40	16.77
		PM ₁₀	16.72	9.22
		Al ₂ O ₃	30.40	16.77
R56/AHC211	R-56 Alumina Handling	PM ₁₀	0.15	0.66
	Conveyor No. 2 Head Pulley	Al ₂ O ₃	0.15	0.66
	Bag Collector			
R56-4/CT01	R-56-4-Cooling Tower (4)	PM ₁₀	0.0019	0.0083
		NaOH	0.0019	0.0083
R55/ESPD11	R-55-ESP Dust Redigest	Al ₂ O ₃	0.46	2.01
	(Tank No. 1) Wet Scrubber	PM ₁₀	0.23	1.10
		PM	0.46	2.01

1995 Permit Sources with more than one physical source

R10/B33A10	R-10-Bauxite Transfer No. 3	PM	0.23	0.24
	Conveyor to No. 3A Belt (4)	PM ₁₀	0.11	0.11
R10/B33B10	R-10-Bauxite Transfer No. 3	PM	0.23	0.24
	Conveyor to No. 3B Belt (4)	PM ₁₀	0.11	0.11
R10/B39A10	R-10-Bauxite Transfer No. 3	PM	0.23	0.24

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AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
	Conveyor to No. 9A Belt (4)	PM ₁₀	0.11	0.11
R10/B31610	R-10-Bauxite Transfer No. 3	PM	0.23	0.24
	Conveyor to No. 16 Belt (4)	PM ₁₀	0.11	0.11
R10/B31510	R-10-Bauxite Transfer No. 3	PM	0.23	0.24
	Conveyor to No. 15 Belt (4)	PM ₁₀	0.11	0.11
R10/BDS111	R-10-Bauxite Drop To Outside	PM	0.23	0.22
	Storage No. 1 (4)	PM ₁₀	0.11	0.11
R10/BDS211	R-10-Bauxite Drop To Outside	PM	0.23	0.22
	Storage No. 2 (4)	PM ₁₀	0.11	0.11
R10/BDS311	R-10-Bauxite Drop To Outside	PM	0.23	0.22
	Storage No. 3 (4)	PM ₁₀	0.11	0.11
R16/BDXX11	R-16-Bauxite Drop-Inside Building	PM		0.23
	(4)	PM ₁₀	0.22	
			0.11	0.11
R15/BDXX11	R-15-Bauxite Drop-Inside Building	PM		0.23
	(4)	PM ₁₀	0.22	
			0.11	0.11
R25/RM0102	R-25-Rod Mill Feed No. 1 Vent	Hg	0.005	0.02
	VOC		0.14	0.44
R25/RM0202	R-25-Rod Mill Feed No. 2 Vent	Hg	0.005	0.02
	VOC		0.14	0.44
R25/RM0302	R-25-Rod Mill Feed No. 3 Vent	Hg	0.005	0.02
	VOC		0.14	0.44
R25/RM0402	R-25-Rod Mill Feed No. 4 Vent	Hg	0.005	0.02
	VOC		0.14	0.44

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Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
R25/RM0502	R-25-Rod Mill Feed No. 5 Vent	Hg		0.005	0.02
	VOC		0.14	0.44	
R25/RM0602	R-25-Rod Mill Feed No. 6 Vent	Hg		0.005	0.02
	VOC		0.14	0.44	
R25/RM0702	R-25-Rod Mill Feed No. 7 Vent	Hg		0.005	0.02
	VOC		0.14	0.44	
R25/RM0802	R-25-Rod Mill Feed No. 8 Vent	Hg		0.005	0.02
	VOC		0.14	0.44	
R25A/S0101	R-25A-Vessel No. 1 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0201	R-25A-Vessel No. 2 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0301	R-25A-Vessel No. 3 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0401	R-25A-Vessel No. 4 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0501	R-25A-Vessel No. 5 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0601	R-25A-Vessel No. 6 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0701	R-25A-Vessel No. 7 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	
R25A/S0801	R-25A-Vessel No. 8 Vent	Hg		0.001	0.003
	VOC		0.32	1.19	

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Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
R30/L11X01	R-30-Low Temperature 1 Blow-Off No. 1 Stack A	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L11X02	R-30-Low Temperature 1 Blow Off No. 1 Stack B	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L12X01	R-30-Low temperature 1 Blow Off No. 2 Stack A	Hg			0.0006
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L12X02	R-30-Low Temperature 1 Blow Off No. 2 Stack B	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L23X01	R-30-Low Temperature 2 Blow Off No. 3 Stack A	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L23X02	R-30-Low Temperature 2 Blow Off No. 3 Stack B	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L24X01	R-30-Low Temperature 2 Blow Off	Hg		0.0006	0.002

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Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
	No. 4 Stack A	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L24X02	R-30-Low Temperature 2 Blow Off	Hg		0.0006	0.002
	No. 4 Stack B	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L35X01	R-30-Low Temperature 3 Blow Off	Hg		0.0006	0.002
	No. 5 Stack A	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L35X02	R-30-Low temp 3 Blow Off	Hg		0.0006	0.002
	No. 5 Stack B	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L36X01	R-30-Low Temperature 3 Blow Off	Hg		0.0006	0.002
	No. 6 Stack A	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L36X02	R-30-Low Temperature 3 Blow Off	Hg		0.0006	0.002
	No. 6 Stack B	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L47X01	R-30-Low Temperature 4 Blow Off	Hg		0.0006	0.002
	No. 7 Stack A	PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L47X02	R-30-Low Temperature 4 Blow Off	Hg		0.0006	0.002
	No. 7 Stack B	PM ₁₀		0.05	0.17

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AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L48X01	R-30-Low Temperature 4 Blow Off No. 8 Stack A	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R30/L48X02	R-30-Low Temperature 4 Blow Off No. 8 Stack B	Hg		0.0006	0.002
		PM ₁₀		0.05	0.17
		NaOH	0.05	0.17	
		VOC	0.04	0.11	
R40/HI0101	R-40-Heat Interchange Vacuum No. 1 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R40/HI0201	R-40-Heat Interchange Vacuum No. 2 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R40/HI0301	R-40-Heat Interchange Vacuum No. 3 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R40/HI0401	R-40-Heat Interchange Vacuum No. 4 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R40/HI0501	R-40-Heat Interchange Vacuum No. 5 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R40/HI0601	R-40-Heat Interchange Vacuum No. 6 Vent	Hg		0.0005	0.001
		VOC		0.05	0.15
R45A/C0101	R-45A-Barometric Condenser Vent No. 1	Hg		<0.0001	0.0003
		VOC		0.01	0.013
R45A/C0201	R-45A-Barometric Condenser Vent No. 2	Hg		<0.0001	0.0003
		VOC		0.01	0.013

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
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
R42/04EV01	R-42-No. 4 Evaporation Vacuum Vent	Hg VOC	0.0006 0.02	0.002 0.05
R56/HF1201	R-56-Horizontal Filter No. 1 Vent	Hg VOC	0.0019 2.90	0.0078 12.08

1995 Permit sources with changes

R110/HP101	R-110-High Pressure Boiler No. 1	VOC	0.44	
		PM	4.43	
		PM ₁₀	4.43	
		NO _x	65.86	
		CO	37.54	
R110/HP201	R-110-High Pressure Boiler No. 2	SO ₂	2.32	
		VOC	0.35	
		PM	3.54	
		PM ₁₀	3.54	
		NO _x	38.77	
R110/HP301	R-110-High Pressure Boiler No. 3	CO	27.57	
		SO ₂	1.86	
		VOC	0.35	
		PM	3.54	
		PM ₁₀	3.54	
		NO _x	34.40	
		CO	15.02	
		SO ₂	1.86	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission	Rates
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
R110/HP411	R-110-High Pressure Boiler No. 4	VOC		0.35	
		PM		3.54	
		PM ₁₀	3.54		
		NO _x	38.77		
		CO	27.57		
R110/HP501	R-110-High Pressure Boiler No. 5	SO ₂		1.86	
		VOC		0.44	
		PM		4.43	
		PM ₁₀	4.43		
		NO _x	51.87		
R110/HP611	R-110-High Pressure Boiler No. 6	CO		38.22	
		SO ₂		2.32	
		VOC		0.50	
		PM		4.95	
		PM ₁₀	4.95		
R110/LP101	R-110-Low Pressure Boiler No. 1	NO _x		11.43	
		CO		14.10	
		SO ₂		2.59	
		VOC		0.25	
		PM		2.84	
R110/LP201	R-110-Low Pressure Boiler No. 2	PM ₁₀	2.84		
		NO _x	20.29		
		CO	22.22		
		SO ₂	1.31		
		VOC		0.25	
Total of all boilers		VOC			10.27

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		PM	99.83	
		PM ₁₀	99.83	
		NO _x	942.19	
		CO	737.88	
		SO ₂	50.21	
R45/PAVX00	R-45 Precipitation Area Vessels (4)	Hg	0.0027	0.01
		PM	10.69	47.45
		PM ₁₀	10.69	47.45
		NaOH	10.69	47.45
		VOC	0.95	3.59
R50/K04711	R-50 Kilns Electrostatic Precipitator	VOC	12.68	
	East Stack	PM	60.00	
		PM ₁₀	60.00	
		NO _x	421.08	
		CO	16.16	
		SO ₂	1.00	
		Hg	0.0181	
R50/K04712	R-50 Kilns Electrostatic Precipitator	VOC	12.68	
	West Stack	PM	60.00	
		PM ₁₀	60.00	
		NO _x	421.08	
		CO	16.16	
		SO ₂	1.00	
		Hg	0.0181	
R55-1/FC11	R-55-1 Flash Calciner (SGA)	VOC	14.75	
	Electrostatic Precipitator	PM	33.94	
		PM ₁₀	33.94	
		NO _x	12.60	
		CO	151.20	
		SO ₂	1.43	
		Hg	0.0181	

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R55-2/FC11	R-55-2 Flash Calciner (SGA)	VOC	14.75	
	Electrostatic Precipitator	PM	18.86	
		PM ₁₀	18.86	
		NO _x	13.50	
		CO	162.00	
		SO ₂	1.57	
		Hg	0.0181	
R55-3/FC11	R-55-3 Flash Calciner (SGA)	VOC	14.75	
	Electrostatic Precipitator	PM	18.86	
		PM ₁₀	18.86	
		NO _x	25.56	
		CO	162.00	
		SO ₂	1.57	
		Hg	0.0181	
R55-1/FC11	R-55 Units - Hard Burn Production	VOC		3.69
R55-2/FC11	(all three calciners)	PM	33.94	
R55-3/FC11	Electrostatic Precipitator	PM ₁₀	33.94	
		NO _x	55.38	
		CO	36.00	
		SO ₂	1.57	
		Hg	0.0181	
R56-4FC11	R-56-4 Flash Calciner	VOC	29.40	
	Electrostatic Precipitator	PM	8.04	
		PM ₁₀	8.04	
		NO _x	31.60	
		CO	78.12	
		SO ₂	2.95	
		Hg	0.036	

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	Total of calcination department	VOC		200.05
		PM	595.45	
		PM ₁₀	595.45	
		NO _x	827.59	
		CO	1744.86	
		SO ₂	31.17	
		Hg	0.44	
R50/07AG11	R-50 No. 7 Air Gravity Conveyor	PM		0.15
	Bag Collector	PM ₁₀	0.15	0.66
R50/09AG11	R-50 No. 9 Air Gravity Conveyor	PM		0.15
	Bag Collector	PM ₁₀	0.15	0.66
R51/ASVX11	R-51-Alumina Storage Vessel	PM	0.22	0.94
	Bag Collector	PM ₁₀	0.22	0.94
R53C/SVX11	R-53C Alumina Storage Vessel	PM	0.29	1.25
	Bag Collector	PM ₁₀	0.29	1.25
R52/BLCD11	R-52 Bulk Conveyor Transfer	PM	0.67	2.94
	Bag Collector	PM ₁₀	0.67	2.94
R52/BLCX21	R-52 Bulk Loading Chute -North	PM		1.08
	Bag Collector	PM ₁₀	1.08	4.73
R56/AHC221	R-56 Alumina Handling	PM	0.15	0.66
	Conveyor No. 2	PM ₁₀	0.15	0.66
	Tail No. 1 Bag Collector			

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY

R56/AHC231	R-56 Alumina Handling	PM	0.15	0.66
	Conveyor No. 2	PM ₁₀	0.15	0.66
	Tail No. 2 Bag Collector			

Sources Previously Under Permit Number 1475

R51C/AVX11	R-51C- Al ₂ O ₃ Storage Vessel Bag Collector	PM	6.00	26.00
		PM ₁₀	6.00	26.00
R51E/05L11	R-51E-No. 5 Track Loading- Al ₂ O ₃ Bag Collector	PM		0.59
		PM ₁₀	0.59	2.60
R51E/06L11	R-51E-No. 6 Track Loading- Al ₂ O ₃ Bag Collector	PM		0.64
		PM ₁₀	0.64	2.80
R51E/SPV11	R-51E- Al ₂ O ₃ Special Products Vessel Bag Collector	PM		0.74
		PM ₁₀	0.74	3.20
R51E/SVX11	R-51E- Al ₂ O ₃ Storage Vessel Bag Collector	PM	1.10	4.80
		PM ₁₀	1.10	4.80

Previously Grandfathered Sources From the C30 Hydrate Production Process

R85/HD0111	R-85-No. 1 Hydrate Dryer Wet Scrubber	PM	3.00	13.14
		PM ₁₀	3.00	13.14
R85/HD0211	R-85-No. 2 Hydrate Dryer Wet Scrubber	PM	3.00	13.14
		PM ₁₀	3.00	13.14
R85/OSLX00	R 85 On Shore Lagoon (4)	PM	1.00	1.00
		PM ₁₀	1.00	1.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
<u>Previously Grandfathered Sources from the AIF₃ Process</u>				
R10/SDOS00	R-10-Spar Drop to Outside Storage	PM		0.01
	(4)	PM ₁₀	0.01	0.01
R10/ST3D00	R-10-Spar Transfer No. 3 Conveyor to Drop (4)	PM	0.01	0.01
		PM ₁₀	0.01	0.01
R73C/RCL11	R-73C-Railcar Loading Bag Collector	PM		0.19
	0.83			
	PM ₁₀	0.19	0.83	
R8/SATXX01	R-8-Sulfuric Acid Tank Vent	H ₂ SO ₄	1.00	1.00
R81/SULX11	R-81-Spar Unloading Bag Collector	PM	0.19	0.83
	PM ₁₀	0.19	0.83	
R81/SV0101	R-81-Spar Vessel Vent No. 1	PM	0.32	1.37
	PM ₁₀	0.32	1.37	
R81/SV0201	R-81-Spar Vessel Vent No. 2	PM	0.32	1.37
	PM ₁₀	0.32	1.37	
R81/SV0301	R-81-Spar Vessel Vent No. 3	PM	0.32	1.37
	PM ₁₀	0.32	1.37	
R82/SHXX11	R-82-Spar Handling Bag Collector	PM		0.94
		4.12		
	PM ₁₀	0.94	4.12	
R83A/SAT01	R-83A-Sulfuric Acid Tank Vent	H ₂ SO ₄	1.00	1.00
R83B/SAT01	R-83B-Sulfuric Acid Tank Vent	H ₂ SO ₄	1.00	1.00
R83C/SAL01	R-83C-Sulfuric Acid Lift Tank Vent	H ₂ SO ₄	1.00	1.00
R83D/SAL01	R-83D-Sulfuric Acid Lift Tank Vent	H ₂ SO ₄	1.00	1.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission	Rates
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
R84/AFC111	R-84-AIF3 -Converter No. 1 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
R84/AFC211	R-84-AIF3 -Converter No. 2 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
R84/AFC311	R-84-AIF3 -Converter No. 3 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
R84/AFC411	R-84-AIF3 -Converter No. 4 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
R84/AFC511	R-84-AIF3 -Converter No. 5 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
R84/AFC611	R-84-AIF3 -Converter No. 6 Wet Scrubber	PM		0.2	
		PM ₁₀		0.2	
		HF	0.001		
		H ₂ SO ₄	0.05		
		VOC	0.33		
Total for all converters		PM			5.26
		PM ₁₀		5.26	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		HF	0.10	
		H ₂ SO ₄	1.31	
		VOC	8.67	
R84/AFEX11	R-84-AIF3 Elevator Bag Collector	PM		0.34
		PM ₁₀	1.49	
			0.34	1.49
R84/HFF101	R-84-HF Furnace No. 1 Vent	PM	0.02	
		PM ₁₀	0.02	
		SO ₂	1.00	
		CO	0.02	
		NO _x	0.12	
		VOC	0.01	
		HF	0.01	
R84/HFF201	R-84-HF Furnace No. 2 Vent	PM	0.02	
		PM ₁₀	0.02	
		SO ₂	1.00	
		CO	0.02	
		NO _x	0.12	
		VOC	0.01	
		HF	0.01	
R84/HFF301	R-84-HF Furnace No. 3 Vent	PM	0.02	
		PM ₁₀	0.02	
		SO ₂	1.00	
		CO	0.02	
		NO _x	0.12	
		VOC	0.01	
		HF	0.01	
R84/HFF401	R-84-HF Furnace No. 4 Vent	PM	0.02	
		PM ₁₀	0.02	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		SO ₂	1.00	
		CO	0.02	
		NO _x	0.12	
		VOC	0.01	
		HF	0.01	
R84/HFF501	R-84-HF Furnace No. 5 Vent	PM	0.02	
		PM ₁₀	0.02	
		SO ₂	1.00	
		CO	0.02	
		NO _x	0.12	
		VOC	0.01	
		HF	0.01	
R84/HFF601	R-84-HF Furnace No. 6 Vent	PM	0.02	
		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		0.53
		PM ₁₀	0.53	
		SO ₂	26.28	
		CO	0.53	
		NO _x	3.15	
		VOC	0.27	
		HF	0.27	
R84/HFK111	R-84-HF Kiln No. 1-Gypsum Box	PM		0.04
	Wet Scrubber	PM ₁₀	0.04	
		HF	0.86	
		H ₂ SO ₄	1.33	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
		VOC	0.01		
R84/HFK211	R-84-HF Kiln No. 2-Gypsum Box Wet Scrubber	PM ₁₀	PM	0.04	0.04
		HF	0.86		
		H ₂ SO ₄	1.33		
		VOC	0.01		
R84/HFK311	R-84-HF Kiln No. 3-Gypsum Box Wet Scrubber	PM ₁₀	PM	0.04	0.04
		HF	0.86		
		H ₂ SO ₄	1.33		
		VOC	0.01		
R84/HFK411	R-84-HF Kiln No. 4-Gypsum Box Wet Scrubber	PM ₁₀	PM	0.04	0.04
		HF	0.86		
		H ₂ SO ₄	1.33		
		VOC	0.01		
R84/HFK511	R-84-HF Kiln No. 5-Gypsum Box Wet Scrubber	PM ₁₀	PM	0.04	0.04
		HF	0.86		
		H ₂ SO ₄	1.33		
		VOC	0.01		
R84/HFK611	R-84-HF Kiln No. 6-Gypsum Box Wet Scrubber	PM ₁₀	PM	0.04	0.04
		HF	0.86		
		H ₂ SO ₄	1.33		
		VOC	0.01		
	Total for gypsum boxes	PM			1.05
		PM ₁₀		1.05	
		HF		22.60	
		H ₂ SO ₄		34.95	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
		VOC	0.26	
R84NZ/HS11	R-84 Hydrate Vessels Common Stack	PM		0.03
	(North) Bag Collector	PM ₁₀	0.03	0.03
R84NA/HS01	R-84-Hydrate Vessel Vent No. 4	PM		0.03
		PM ₁₀	0.03	
R84NB/HS01	R-84-Hydrate Vessel Vent No. 5	PM		0.03
		PM ₁₀	0.03	
R84NC/HS01	R-84-Hydrate Vessel Vent No. 6	PM		0.03
		PM ₁₀	0.03	
R85SZ/HS11	R-84-Hydrate Storage Common Stack	PM		0.03
	(South) Bag Collector	PM ₁₀	0.03	0.03
R84SA/HS01	R-84-Hydrate Vessel Vent No. 1	PM		0.03
		PM ₁₀	0.03	
R84SB/HS01	R-84-Hydrate Vessel Vent No. 2	PM		0.03
		PM ₁₀	0.03	
R84SC/HS01	R-84-Hydrate Vessel Vent No. 3	PM		0.03
		PM ₁₀	0.03	
R86Z/AFS11	R-86A and R-86B AlF ₃ Storage	PM	0.08	0.08
	Common Stack Bag Collector	PM ₁₀	0.08	0.08

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY

Sources Previously Under Standard Exemptions or Permits by Rule

B37/UOTX01	B-37-Used Oil Storage Tank Vent	VOC	1.00	1.00
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
R110/SBX01	R-110-Substitute Boiler	NO _x	11.18	11.26
		CO	11.35	11.49
		VOC	0.16	0.16
		SO ₂	0.00	0.00
		PM ₁₀	1.31	1.32
R111/UOT01	R-111-Used Oil Storage Tank Vent	VOC	1.00	1.00
R148/SBN11	R-148-Sand Blasting-	PM	0.50	0.30
	Machine Shop-North Bag Collector	PM ₁₀	0.50	0.30
R148/SBS11	R-148-Sand Blasting-	PM	0.50	0.30
	Machine Shop-South Bag Collector	PM ₁₀	0.50	0.50
		0.30		
R15/DSTX01	R-15-Diesel Storage Tank Vent	VOC	0.50	0.12
R25/PCL101	R-25 Pre Coat Lime Slaker	PM	0.20	0.80
	No. 1 Vent	PM ₁₀	0.20	0.80
R25/PLS201	R-25 Process Lime Slaker No. 2	PM	0.80	0.20
	(spare) Vent	PM ₁₀	0.20	0.80

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
R25/PLSX01	R-25 New Product Lime Slaker Vent	PM		0.20	0.80
		PM ₁₀		0.20	0.80
R35/HCIX11	R-35-HCl Acid Storage Tank Wet Scrubber	HCl		0.12	0.54
R35M/D0100	R-35M-Dredge Lake No. 1 (4)	PM		0.40	0.18
		PM ₁₀	0.30	0.15	
R35M/D0200	R-35M-Dredge Lake No. 2 (4)	PM		0.40	0.18
		PM ₁₀	0.30	0.15	
R35M/L0400	R-35M-Lake No. 4 (4)	PM		11.80	5.20
		PM ₁₀	10.00	4.49	
R35M/LF300	R-35M-Landfill Site III (4)	PM		0.40	0.18
		PM ₁₀	0.30	0.15	
R35M/RLX00	R-35M-Recycle Lake (4)	PM		0.40	0.18
		PM ₁₀	0.30	0.15	
R35V/DFV11	R-35-V Flocculent vessel No. 1 Bag Collector	PM		0.14	0.61
		PM ₁₀		0.14	0.61
R35V/DFV21	R-25-V Flocculent vessel No. 2 Bag Collector	PM		0.14	0.61
		PM ₁₀		0.14	0.61
R38M/SBX11	R-38M-Sand Blasting Bag Collector	PM		1.00	1.00
		PM ₁₀		1.00	1.00
R38M/UOT01	R-38M-Used Oil Storage Tank Vent	VOC		1.00	1.00
R45/DSTX01	R-45-Diesel Storage Tank Vent	VOC		0.50	0.12

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R45/EXXX00	R-45-Ethanol Containers (4)	VOC	0.50	0.10
R45/OSVX11	R-45-Oxalate System Vessel Bag Collector	PM	0.05	0.22
		PM ₁₀	0.05	0.22
R42/HECV01	R42-High Efficiency Causticization Relief Vessel Vent	PM	0.09	0.40
		PM ₁₀	0.09	0.40
		VOC	0.07	
		Hg	0.0011	
R42/HECP01	R42-High Efficiency Causticization Vacuum Pump Vent	VOC	0.02	0.09
		Hg	0.0006	0.003
R50/No. 5LP11	R-50-No. 5 Low Lift Pot- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/No. 7LP11	R-50-No. 7 Low Lift Pot- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/01AG11	R-50-No. 1 Air Gravity Conveyor- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/02AG21	R-50-No. 2 Air Gravity Conveyor- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/03AG21	R-50-No. 3 Air Gravity Conveyor- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/04AG21	R-50-No. 4 Air Gravity Conveyor- Al ₂ O ₃ Bag Collector	PM	0.26	1.16
		PM ₁₀	0.26	1.16
R50/08AG11	R-50-No. 8 Air Gravity Conveyor- Al ₂ O ₃ Bag Collector	PM	0.34	1.50
		PM ₁₀ 1.50		0.34
R50/10AG11	R-50-No. 10 Air Gravity	PM	0.30	1.30

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.30	1.30
R50/1AAG11	R-50-No. 1A Air Gravity	PM	0.34	1.50
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.34	1.50
R50/2EAG11	R-50-No. 2E Air Gravity	PM	0.26	1.16
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.26	1.16
R50/3EAG11	R-50-No. 3E Air Gravity	PM	0.26	1.16
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.26	1.16
R50/4EAG11	R-50-No. 3E Air Gravity	PM	0.26	1.16
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.26	1.16
R50/4EAG11	R-50-No. 4E Air Gravity	PM	0.26	1.16
	Conveyor- Al ₂ O ₃ Bag Collector	PM ₁₀	0.26	1.16
R50/56LP11	R-50-No. 5/6 Low Lift Pot- Al ₂ O ₃	PM		0.26
	Bag Collector	PM ₁₀	0.26	1.16
R50/67LP11	R-50-No. 6/7 Low Lift Pot- Al ₂ O ₃	PM		0.26
	Bag Collector	PM ₁₀	0.26	1.16
R50/ASPV11	R-50-Al ₂ O ₃ Special Products Vessel	PM	6.00	25.00
	Bag Collector	PM ₁₀	6.00	25.00
R53/RCUX11	R-53-Railcar Unloading	PM	1.37	6.01
	Bag Collector	PM ₁₀	1.37	6.01
R55-2/DB11	R-55-2-Flash Calciner Disengaging	PM		3.00
	Box Bag Collector	PM ₁₀	3.00	13.14
R55-3/DB11	R-55-3-Flash Calciner Disengaging	PM		3.00

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		13.14		
	Box Bag Collector	PM ₁₀	3.00	13.14
R55/01DB12	R-55-(1-2-3)Disengaging Box-Spare	PM		3.00
		13.14		
	Bag Collector	PM ₁₀	3.00	13.14
R55/ESP211	R-55 ESP Dust Redigest Tank No. 2	PM		1.00
		4.40		
	Wet Scrubber	PM ₁₀	1.00	4.40
R56/ESP11	R-56 ESP Dust Redigest Tank No. 1	PM		6.00
		1.00		
	Wet Scrubber	PM ₁₀	6.00	1.00
R56/ESP211	R-56 ESP Dust Redigest tank No. 2	PM	6.00	1.00
		PM ₁₀	6.00	1.00
R56/HSRX01	R-56-Hydrate Storage drop	PM	2.20	1.19
	to conveyor(4)	PM ₁₀	2.20	1.19
R56/HSRX02	R-56-Hydrate Storage drop to	PM	2.20	1.19
	stockpile (4)	PM ₁₀	2.20	1.19
R56/HSRX03	R-56-Hydrate Storage stockpile	PM	2.20	1.19
	(4)	PM ₁₀	2.20	1.19
R56/HSRX14	R-56-Hydrate Storage drop into	PM	0.60	0.32
	hopper(4)	PM ₁₀	0.60	0.32
R56/HSRX15	R-56-Hydrate Storage- drop to	PM	0.60	0.32
	reclaim conveyor (4)	PM ₁₀	0.60	0.32
R56/HSRX16	R-56-Hydrate Storage- drop to	PM	0.60	0.32
	slurry tank (4)	PM ₁₀	0.60	0.32

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R56/HRCX21	R-56 Hydrate Railcar Loading	PM	1.1	1.19
	Drop from Loader Bucket Into Conveyor Hopper (4)	PM ₁₀	0.55	0.59
R56/HRCX22	R-56 Hydrate Railcar Loading	PM	1.1	1.19
	Drop from Hopper to Conveyor (4)	PM ₁₀	0.55	0.59
R56/HRCX23	R-56 Hydrate Railcar Loading	PM	1.1	1.19
	Conveyor Drop into Railcar (4)	PM ₁₀	0.55	0.59

Note: Hydrate Railcar Loading (EPNs R56/HRCX21, R56/HRCX22, and R56/HRCX23) will not operate at the same time as R56 Hydrate Reclaim (EPNs R56/HSRX14, R56/HSRX15, and R56/HSRX16), or R56 Hydrate Truck Loading (EPN) R56/HTLX31.

R56/HTLX31	R-56 Hydrate Truck Loading	PM	1.1	1.19
	Drop from Loader Bucket into Truck (4)	PM ₁₀	0.55	0.59

Note: R56 Hydrate Truck Loading (EPN R56/HTLX31) will not operate at the same time as R-56 Hydrate Railcar Loading (EPNs R56/HSRX14, R56/HSRX15, and R56/HSRX16) or R56 Hydrate Reclaim (EPNs R56/HRCX21, R56/HRCX22, and R56/HRCX23).

R8/SHTXX01	R-8-Starch Vessel Vent	PM	6.00	10.00
		PM ₁₀	6.00	10.00
R80/SPAR01	R80 Spar Stockpile Transfer (4)	PM	6.00	1.00
		PM ₁₀	6.00	1.00
R81/SDXX11	R-81-Spar Drying Bag Collector	PM	0.87	3.83
		PM ₁₀	0.87	3.83
R81/SGXX	R-81-Spar Grinding Bag Collector	PM		0.19
		PM ₁₀	0.83	
			0.19	0.83
R85/HH0211	R-85-Hydrate Handling No. 2	PM	0.03	1.18

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	Bag Collector	PM ₁₀	0.03	1.18
R85/HH011	R-85-Hydrate Handling No. 1	PM	0.03	1.18
	Bag Collector	PM ₁₀	0.03	1.18
R85B/HSV11	R-85B-Hydrate Storage	PM	0.06	0.60
	Bag Collector	PM ₁₀	0.06	0.60

Sources Previously Under A Standard Permit

R84/SF1X11	R-84-WT Spar Feed No. 1	PM	0.36	1.11
	Bag Collector	PM ₁₀	0.36	1.11
R84/SF1611	R-84-WT Spar Feed Nos. 2, 3,	PM	1.44	4.42
	4, and 5 Bag Collector	PM ₁₀	1.44	4.42
R84/SF6X11	R-84-WT Spar Feed No. 6	PM	0.36	1.11
	Bag Collector	PM ₁₀	0.36	1.11

Previously Grandfathered Sources from the Bayer Process

B37/GXXX00	B-37-Garage (4)	VOC	1.00	1.00
B60/S00600	B-60-Smelting Lagoon (4)	VOC	1.00	1.00
R10/SADX00	R-10 Sulfuric Acid Unloading Dock (4)	H ₂ SO ₄	1.00	1.00
R110/05D01	R-110 5 lb Deaerator Vent	VOC		0.0002
		0.0006		
	Hg	0.0005	0.002	
R110/95D01	R-110 95 lb Deaerator Vent	VOC		0.07
		0.29		
	Hg	0.0003	0.002	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R110/CTX01	R-110 Cooling Tower (4)	PM	0.10	0.50
		PM ₁₀ 0.10	0.50	
R111/GXX00	R-111-Garage (4)	VOC	1.00	1.00
R115/STP01	R-115 Sanitary Treatment Plant (4)		Cl	1.00
		0.10		
R148/MSX11	R-148 Machine Shop Sand Blasting	PM		1.00
		1.00		
	Bag Collector	PM ₁₀	1.00	1.00
R25/RM0101	R-25-Rod Mill No. 1 Vent	VOC		0.14
		0.44		
		Hg 0.005	0.02	
R25/RM0201	R-25-Rod Mill No. 2 Vent	VOC		0.14
		0.44		
		Hg 0.005	0.02	
R25/RM0301	R-25-Rod Mill No. 3 Vent	VOC		0.14
		0.44		
		Hg 0.005	0.02	
R25/RM0401	R-25-Rod Mill No. 4 Vent	VOC		0.14
		0.44		
		Hg 0.005	0.02	
R25/RM0501	R-25-Rod Mill No. 5 Vent	VOC		0.14
		0.44		
		Hg 0.005	0.02	
R25/RM0601	R-25-Rod Mill No. 6 Vent	VOC		0.14
		0.44		

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		Hg	0.005	0.02
R25/RM0701	R-25-Rod Mill No. 7 Vent	VOC		0.14
		0.44		
		Hg	0.005	0.02
R25/RM0801	R-25-Rod Mill No. 8 Vent	VOC		0.1
		0.44		
		Hg	0.005	0.002
R31/RTXX01	R-31 Relief Tank (Unit 6) (4)		VOC	0.80
		3.50		
R33/RTXX01	R-33 Relief Tank (Unit 5) (4)		VOC	0.80
		3.50		
R35/STXX00	R-35-Secondary Thickeners Vent		VOC	2.00
		5.00		
		Hg	0.001	0.004
R35/PSBX00	R-35 Painting and Sand Blasting (4)	PM	0.06	0.24
		PM ₁₀	0.03	0.12
		VOC	1.50	5.91
R35/WTAX	R-35-Washer Train A Vents	VOC		2.00
		5.00		
		Hg	0.20	0.90
R35/WTBX00	R-35-Washer Train B Vents	VOC		2.00
		5.00		
		Hg	0.20	0.90
R35M/CLX00	R-35M-Clear Lake (4)	PM	0.40	0.18
		PM ₁₀	0.30	0.15
R35M/L1X00	R-35M-Lake No. 1 (4)	PM	0.40	0.18

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant		Emission Rates	
Point No. (1)	Name (2)	Name (3)		lb/hr	TPY
		PM ₁₀	0.30	0.15	
R35M/L2X00	R-35M-Lake No. 2 (4)	PM		11.80	5.20
		PM ₁₀	10.00	4.40	
R35M/L3X00	R-35M-Lake No. 3 (4)	PM		0.40	0.18
		PM ₁₀	0.30	0.15	
R35M/RWX00	R-35M Raw Water Lake (4)	PM			0.40
			0.18		
		PM ₁₀	0.30	0.15	
R35M/SLX00	R-35M Storm Lake (4)	PM		5.70	2.50
		PM ₁₀	5.00	1.10	
R35V/FS201	R-35V Flocculent Tank - South			VOC	3.59
	No. 2 Vent		0.37		
R45/GSTX01	R-45 Gasoline Storage Tank Vent			VOC	1.00
			1.00		
R50/A1XX11	R-50 Alumina Handling (A)	PM			0.43
	Collector		1.88		
		PM ₁₀		0.43	1.88
R50/A2XX11	R-50 Alumina Handling (B)	PM			0.43
	Collector		1.88		
		PM ₁₀		0.43	1.88
R50/KVAX01	R-50 Kiln Vacuum Pump A	VOC		3.00	11.83
	Vent				
R50/KVBX01	R-50 Kiln Vacuum Pump B	VOC		3.00	11.83
	Vent				

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
R50/K04X03	R-50-Kiln Vent No. 4	PM	92.90	4.65
		PM ₁₀	92.90	4.65
R50/K05X03	R-50-Kiln Vent No. 5	PM	92.90	4.65
		PM ₁₀	92.90	4.65
R50/K06X03	R-50-Kiln Vent No. 6	PM	92.90	4.65
		PM ₁₀	92.90	4.65
R50/K07X03	R-50-Kiln Vent No. 7	PM	92.90	4.65
		PM ₁₀	92.90	4.65
R55/HF1401	R-55-Horizontal Filter Nos.		VOC	6.48
	1, 2, 3, and 4 Vent	Hg	26.4	0.004
			0.004	0.016
R55-1/DB11	R-55-1 Flash Calciner Disengaging		PM	3.00
	Box Bag Collector		13.14	
		PM ₁₀	3.00	13.14
R60/LCDX11	R-60 Lime Conveyor Discharge		PM	8.26
	Bag Collector		36.18	
		PM ₁₀	8.26	36.18
R60/LTXX11	R-60-Lime Transfer/Storage/Transfer		PM	2.47
			10.80	
	Bag Collector		PM ₁₀	2.47
				10.80

(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) PM - particulate matter, suspended in the atmosphere, including PM₁₀.

PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

Hg - Mercury

VOC - Volatile organic compounds

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	NaOH - Sodium hydroxide			
	Al ₂ O ₃ - Alumina			
	NO _x - Nitrogen oxide			
	CO - Carbon monoxide			
	SO ₂ - Sulfur dioxide			
	H ₂ SO ₄ - Sulfuric acid			
	HF - Hydrogen fluoride			
	HCl - Hydrochloric acid			
	Cl - Chlorine			

(4) Fugitive emissions are an estimate only.

*Emission rates are based on and the facilities are limited by the following maximum operating schedule and the throughput and production rates as listed in Special Condition No. 1:

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

Dated September 17, 2002