EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 85209

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**
Material Handling and Slurry Preparation				
BGUL-DC	Continuous Barge Unloading Dust Collector	PM_{10}	0.99	0.60
CONV-DC1	Conveying Dust Collector	PM_{10}	0.18	0.80
CONV-DC2	Conveying Dust Collector	PM_{10}	0.18	0.80
TRKUL-DC	Truck Unloading Dust Collector	PM_{10}	0.18	0.80
BRN-DC	Barn Dust Collector	PM_{10}	3.98	17.42
GRD-DC1	Grinding Mill Dust Collector	PM_{10}	0.18	0.80
GRD-DC2	Grinding Mill Dust Collector	PM_{10}	0.18	0.80
GRD-DC3	Grinding Mill Dust Collector	PM_{10}	0.18	0.80
GRD-DC4	Grinding Mill Dust Collector	PM_{10}	0.18	0.80
GRD-DC5	Grinding Mill Dust Collector	PM_{10}	0.18	0.80
TRK-LD	Truck Loading	PM	0.01	0.01
SLM-TK1	Slurry Mix Tank	NH_3	0.01	0.01
		H_2S	0.01	0.01
SLM-TK2	Slurry Mix Tank	NH_3	0.01	0.01
		H_2S	0.01	0.01
SLM-TK3	Slurry Mix Tank	NH_3	0.01	0.01
		H_2S	0.01	0.01

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SLM-TK4	Slurry Mix Tank	NH_3	0.01	0.01
		H_2S	0.01	0.01
SLM-TK5	Slurry Mix Tank	NH_3	0.01	0.01
		H_2S	0.01	0.01
SLR-TK1	Slurry Run Tank	NH_3	0.06	0.01
		H_2S	0.27	0.01
SLR-TK2	Slurry Run Tank	NH_3	0.06	0.01
		H_2S	0.27	0.01
SLR-TK3	Slurry Run Tank	NH_3	0.06	0.01
		H_2S	0.27	0.01
SLR-TK4	Slurry Run Tank	NH_3	0.06	0.01
		H_2S	0.27	0.01
SLR-TK5	Slurry Run Tank	NH_3	0.06	0.01
		H_2S	0.27	0.01
SF-TK1	Settler Feed Tank	NH_3	0.02	0.01
		H_2S	0.08	0.01
SF-TK2	Settler Feed Tank	NH_3	0.02	0.01
		H_2S	0.08	0.01
GW-TK1	Grey Water Tank	NH_3	0.07	0.01
		H_2S	0.29	0.01
GW-TK2	Grey Water Tank	NH_3	0.07	0.01
		H_2S	0.29	0.01
LH-FD1	Lockhopper Flush Drum	NH_3	0.01	0.01
		H_2S	0.01	0.01
LH-FD2	Lockhopper Flush Drum	NH_3	0.01	0.01
		H_2S	0.01	0.01
LH-FD3	Lockhopper Flush Drum	NH_3	0.01	0.01
		H_2S	0.01	0.01
LH-FD4	Lockhopper Flush Drum	NH_3	0.01	0.01
		H_2S	0.01	0.01

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RV-D	Rotary Vacuum Drum Filters	NH_3	0.04	0.16
		H_2S	0.07	0.31
Process				
FL	Emergency Flare Pilots	CO	0.01	0.06
		NO_x	0.06	0.25
		SO_2	0.01	0.01
		VOC	0.01	0.01
TOX-2	SRU Thermal Oxidizer	CO	0.03	0.13
		NO_x	0.12	0.53
		SO_2	0.01	0.01
		PM	0.03	0.13
		VOC	0.01	0.03
TOX-3	SRU Thermal Oxidizer	CO	0.03	0.13
		NO_x	0.12	0.53
		SO_2	0.01	0.01
		PM	0.03	0.13
		VOC	0.01	0.03
BLR	Backup Boilers 1, 2, and 3	CO	1.69	7.32
		NO_x	2.27	9.84
		SO_2	0.12	0.54
		PM	1.58	6.85
		VOC	0.34	1.47
CT	Cooling Tower	PM	4.16	18.24

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
FUG	Equipment Leak Fugitives (4)	CO	1.75	7.66
		VOC	0.02	0.11
		SO_2	0.31	1.37
		H_2S	0.20	0.89
		NH_3	0.01	0.03
ASU-F	Air Separation Unit Inlet Filters	PM_{10}	0.29	1.28
TB-LOV	Steam Turbine Lube Oil Demisters Vent	PM	0.10	0.44
Maintenance, Start-up, and Shutdown (MSS) Activities				
TOX-1	Start-up Thermal Oxidzer	CO	1727	72.07
		NO_x	145.4	6.71
		SO_2	2082	76.02
		PM	18.06	0.85
		VOC	0.88	0.06
		H_2S	1.01	0.04
TOX-2	SRU Thermal Oxidizer	CO	0.03	0.01
		NO_x	0.12	0.01
		SO_2	0.02	0.01
		PM	0.03	0.01
		VOC	0.01	0.01
		H_2S	0.01	0.01
TOX-3	SRU Thermal Oxidizer	CO	0.03	0.01
		NO_x	0.12	0.01
		SO_2	0.02	0.01
		PM	0.03	0.01
		VOC	0.01	0.01
		H_2S	0.01	0.01

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PRH-1	Gasifier Preheater	CO	1.65	
		NO_x	0.72	
		SO_2	0.01	
		PM	0.15	
		VOC	0.11	
PRH-2	Gasifier Preheater	CO	1.65	
		NO_x	0.72	
		SO_2	0.01	
		PM	0.15	
		VOC	0.11	
PRH-3	Gasifier Preheater	CO	1.65	
		NO_x	0.72	
		SO_2	0.01	
		PM	0.15	
		VOC	0.11	
PRH-4	Gasifier Preheater	CO	1.65	
		NO_x	0.72	
		SO_2	0.01	
		PM	0.15	
		VOC	0.11	
PRH-1 PRH-2 PRH-3 PRH-4	Gasifier Preheaters	CO		1.88
		NO_x		0.84
		SO_2		0.04
		PM		0.16
		VOC		0.12
BLR	Backup Boilers 1, 2, and 3	CO	8.44	0.37
		NO_x	11.34	0.50
		SO_2	0.62	0.03
		PM	7.90	0.35
		VOC	1.69	0.07

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
EM-GEN	Emergency Generator Engine	CO	7.10	0.18
		NO_x	4.73	0.12
		SO_2	0.01	0.01
		PM	0.46	0.01
		VOC	2.37	0.06
FIRE-PMP	Firewater Pump Engine	CO	7.10	0.18
		NO_x	4.73	0.12
		SO_2	0.01	0.01
		PM	0.46	0.01
		VOC	2.37	0.06
VSSL-MSS	Process Vessel Clearing	CO	0.33	0.01
		VOC	0.40	0.01
		H_2S	0.23	0.01
		NH_3	0.13	0.01
PMPHE-MSS	Pump and Heat Exchanger Clearing	CO	0.01	0.01
		VOC	0.01	0.01
		H_2S	0.37	0.01
		NH_3	0.11	0.01
FLTR-MSS	Filter/Bag Changeout	PM	8.33	0.54
TK-MSS	Tank Cleaning	NH_3	0.23	0.01
		H_2S	0.92	0.01
VTRK-MSS	Vacuum Truck	NH_3	0.01	0.01
		H_2S	0.01	0.01

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(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 - particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
H_2S - hydrogen sulfide
NH_3 - ammonia

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

____ Hrs/day ____ Days/week ____ Weeks/year or 8,760 Hrs/year

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated: January 16, 2009