EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 865A and PSD-TX-1016

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**
ColumnMain	Acrolein Unit Column/Filter Cleaning	VOC	0.01	0.01
D215	Diesel Tank D-215	VOC	0.02	0.01
D307	Methanol Tank D-307	VOC	0.05	0.25
D398	Gasoline Tank D-398	VOC	4.56	0.22
D399	Diesel Tank D-399	VOC	0.02	0.01
D2307	Methanol Tank D-2307	VOC	0.05	0.25
D3191A	Diesel Tank 3191A	VOC	0.02	0.01
D3191B	Diesel Tank 3191B	VOC	0.02	0.01
D8540	Caustic Tank	NaOH	0.01	0.01
Flare	Flare (5) (9) Steady State Operation	CO (8)	627.03	81.46
		H_2S	13.05	5.40
		NO_x (8)	73.12	9.50
		SO_2 (8)	3527.58	311.31
		TRS	53.48	9.89
		VOC	40.86	5.21
		H_2SO_4	60.84	32.12
	Flare Start-Up, Shutdown, and Maintenance	CO (8)	627.03	81.46
		H_2S	67.74	1.43
		NO_x (8)	73.12	9.50
		SO_2 (8)	8779.58	176.33
		TRS	188.71	4.01
		VOC	124.31	3.21

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
H202	Heat Transfer Fluid Heater (31 MMBtu/hr)	CO	2.59	11.32
		NO_x	3.08	13.48
		PM_{10}	0.23	1.02
		SO_2	0.02	0.08
		VOC	0.17	0.74
H401/H402	Sulfur Heater/Methane Heater (7)	CO	1.32	5.77
		NO_x	1.61	7.04
		PM_{10}	0.11	0.52
		SO_2	0.01	0.05
		VOC	0.09	0.38
H501/H502	Sulfur Heater/Methane (7)	CO	1.32	5.77
		NO_x	1.61	7.04
		PM_{10}	0.11	0.52
		SO_2	0.01	0.05
		VOC	0.09	0.38
H2202	Heat Transfer Fluid Heater (31 MMBtu/hr)	CO	2.59	11.32
		NO_x	3.08	13.48
		PM_{10}	0.23	1.02
		SO_2	0.02	0.08
		VOC	0.17	0.74
INCIN	Incinerator	CO	2.03	8.90
		H_2S	0.10	0.42
		NO_x	1.57	6.87
		PM_{10}	0.89	3.90
		SO_2	139.00	84.66
		VOC	0.37	1.61
		TRS	0.36	1.56
S-1	Sulfur Storage Tank	H_2S	0.23	1.00
		SO_2	0.86	3.75
		TRS	0.23	1.00
S-2	Sulfur Pit	H_2S	0.04	0.02

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Emission Rates * lb/hr	TPY**
		SO_2	0.17	0.09	
		TRS	0.04	0.02	
S-3	Sulfur Truck		H_2S	0.02	0.01
		SO_2	0.07	0.04	
		TRS	0.02	0.01	
SULFOX-CT	Sulfox Cooling Tower		PM_{10}	0.04	0.18
		VOC	0.43	1.89	
SULFOX-INH	Bagfilter		PM_{10}	0.08	0.01
SULFOX-TO	Thermal Oxidizer (134.5 MMBtu/hr) Steady State Service		CO (8)	6.14	26.89
			NO_x (8)	4.50	19.71
			PM_{10}	1.09	4.61
			SO_2 (8)	19.49	9.09
		TRS	0.02	0.01	
		VOC	6.11	14.48	
	Thermal Oxidizer (134.5 MMBtu/hr) Start-Up, Shutdown, and Maintenance		CO (8)	9.56	41.87
			NO_x (8)	8.35	36.57
			PM_{10}	1.95	8.54
			SO_2 (8)	1156.47	1.55
		TRS	0.89	0.02	
		VOC	7.84	29.28	
WWTP	Wastewater Treatment Plant		H_2S	0.05	0.20
			VOC	0.12	0.50
X-426A	Steam Boiler (15.8 MMBtu/hr)		CO	1.33	5.81
			NO_x	2.05	9.00
		PM_{10}	0.12	0.53	
			SO_2	0.01	0.04
		VOC	0.09	0.38	
X-426B	Steam Boiler (15.8 MMBtu/hr)		CO	1.33	5.81
			NO_x	2.05	9.00

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**
		PM_{10} 0.12	0.53	
		SO_2	0.01	0.04
		VOC 0.09	0.38	
ACRO-Fug	Acrolein Process Fugitives (4)	VOC	0.19	0.85
ACRO-TksFug	Acrolein Storage Tanks Fugitives (4)	VOC	0.01	0.05
ACRO-WWFug	Acrolein Wastewater Fugitives (4)	VOC	0.01	0.01
BMT-1E/T	Fugitives (4) (6)	H_2S	0.01	0.01
	Train 1 - EtSH or	TRS	0.01	0.01
	TBM Production	VOC	0.30	0.07
BMT-1M	Fugitives (4) (6)	H_2S	0.01	0.04
	Train 1 - MeSH Production	TRS	0.02	0.07
		VOC	0.05	0.22
BMT-2M	Fugitives (4)	H_2S	0.01	0.05
	Train 2 - MeSH Production	TRS	0.02	0.09
		VOC 0.08	0.33	
DMDS	Dimethyl Disulfide Area	TRS	0.06	0.24
	Process Fugitives (4)	VOC	0.06	0.24
DMS	Dimethyl Sulfide Area	TRS	0.02	0.10
	Process Fugitives (4)	VOC	0.02	0.10
DMS Retro-Fug	DMS Retrofit Process Fugitives	VOC	0.01	0.01
		H_2S 0.01	0.01	
		TRS 0.01	0.01	
F-1	H_2S Plant Process Fugitives (4)	H_2S	0.01	0.01
		TRS	0.01	0.01
		VOC 0.01	0.01	
FlareFug	Flare Area Fugitives (4)	VOC	0.01	0.01
Fug-Incin	Incinerator Process Fugitives (4)	H_2S	0.01	0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		VOC	0.01	0.01
MMP-Fug	MMP Process Area Fugitives (4)	VOC	0.01	0.06
MMPRC-Fug	MMP Railcar Loading Area Process Fugitives (4)	VOC	0.04	0.15
MMPtks-Fug	MMP Storage Area Process Fugitives (4)	VOC	0.01	0.02
PR-Tower	Product Recovery Tower Fugitives (4)	H_2S	0.01	0.01
		TRS	0.01	0.01
		VOC	0.02	0.10
RCSHIP	Fugitives Railcar Loading/Unloading (4)	TRS	0.03	0.11
		VOC	0.03	0.11
RUNDOWN	Rundown Tank Fugitives (4)	H_2S	0.01	0.01
		TRS	0.11	0.46
		VOC	0.11	0.46
STORAGE	Fugitives Storage Tanks (4)	TRS	0.15	0.64
		VOC	0.16	0.69
SulfoxChlr	Sulfox Chiller System (4)	HCFC	0.01	0.01
SWS	Fugitives Sour Water Strippers (4)	H_2S	0.01	0.01
		TRS	0.01	0.01
		VOC	0.01	0.01
TO-Fug	Thermal Oxidizer Process Fugitives (4)	VOC	0.01	0.01
TTSHIP	Fugitives Tank Truck Loading/Unloading (4)	TRS	0.03	0.11
		VOC	0.03	0.11

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(2) Specific point source names. 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.
NaOH - sodium hydroxide
H_2SO_4 - sulfuric acid
CO - carbon monoxide
H_2S - hydrogen sulfide
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
TRS - total reduced sulfur. Includes H_2S and sulfur bearing VOC. Excludes SO_2
PM_{10} - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
HCFC - hydrochlorofluorocarbons
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Steady state operation
(6) The BMT-1 Unit can produce either MeSH, EtSH or TBM. Therefore, emissions from BMT-1M and BMT-1E/T do not occur simultaneously.
(7) Common exhaust stack
(8) PSD-TX-1016 pollutant
(9) 416 hours per calendar year operation as the backup control device for EPN Sulfox-TO when it is not operating and 416 hours per calendar year for EPN INCIN when it is not operating.

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

24 Hrs/day 7 Days/week 52 Weeks/year

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

Dated August 17, 2005