EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 22100

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**
S-5A	North Methane Heater A	PM	0.01	0.04
		VOC	0.01	0.03
		NO_x	0.12	0.49
		CO	0.10	0.41
		SO_2	0.01	0.01
S-5B	North Methane Heater B	PM	0.01	0.04
		VOC	0.01	0.03
		NO_x	0.12	0.49
		CO	0.10	0.41
		SO_2	0.01	0.01
S-6A	North Sulfur Heater A	PM_{10}	0.06	0.23
		VOC	0.04	0.17
		NO_x	0.67	2.93
		CO	0.57	2.46
		SO_2	0.01	0.02
S-6B	North Sulfur Heater B	PM_{10}	0.06	0.23
		VOC	0.04	0.17
		NO_x	0.67	2.93
		CO	0.57	2.46
		SO_2	0.01	0.02
S-12	DMDS Unit Reactor Preheater	PM (7)	0.02	0.08
		VOC (7)	0.02	0.06
		NO_x (7)	0.06	0.26
		CO (7)	0.19	0.82
		SO_2 (7)	0.01	0.01

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
S-13	DMDS Unit Hot Oil Heater	PM (7)	0.09	0.37
		VOC (7)	0.07	0.27
		NO_x (7)	0.30	1.31
		CO (7)	0.94	4.08
		SO_2 (7)	0.01	0.02
S-14	Unit 196 Reactor Heater	PM	0.01	0.05
		VOC 0.01	0.04	
		NO_x 0.14	0.58	
		CO 0.12	0.49	
		SO_2 0.01	0.01	
S-15	196 Unit Driers Regen Heater	PM	0.01	0.03
		VOC	0.01	0.02
		NO_x 0.07	0.30	
		CO 0.06	0.26	
		SO_2 0.01	0.01	
S-17	Thermal Oxidizer	PM	0.11	0.50
		H_2S 0.2	0.88	
		SO_2 378.96	603.39	
		NO_x 0.76	3.33	
		CO 42.22	63.33	
		VOC 0.18	0.80	
		Organic Sulfur/TRS	0.23	0.36
S-34	North Boiler	PM_{10}	0.22	0.93
		VOC 0.16	0.68	
		NO_x 2.79	12.21	
		CO 2.34	10.25	
		SO_2 0.01	0.05	
S-35	South Boiler	PM_{10}	0.25	1.08

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Emission Rates * lb/hr	TPY**
		VOC	0.18	0.78	
		NO_x	3.24	14.16	
		CO	2.72	11.89	
		SO_2	0.02	0.05	
S-37	Unit 196 Hot Oil Heater (Existing)		PM	0.04	0.17
			VOC	0.03	0.13
		NO_x	0.51	2.20	
		CO	0.43	1.85	
		SO_2	0.01	0.01	
S-37	Unit 196 Hot Oil Heater		PM	0.06	0.25
		VOC	0.05	0.18	
		NO_x	0.38	1.64	
		CO	0.63	2.75	
		SO_2	0.01	0.02	
S-38	Unit 197 Hot Oil Heater		PM	0.07	0.30
		VOC	0.51	0.24	
		NO_x	0.90	3.91	
		CO	0.75	3.28	
		SO_2	1.30	0.04	
T-9770	Tank T-9770		VOC	3.96	0.67
T-9606	Tank T-9606		VOC	3.96	0.67
T-9635	Tank T-9635		VOC	3.96	1.03
T-9641	Tank T-9641		VOC	3.96	0.94
T-8078	Tank T-8078		H_2S	0.01	0.01
		SO_2	0.17	0.14	
V-8001	Sulfur Pit		H_2S	0.04	0.15
		SO_2	1.00	3.78	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
T-9094	Tank T-9094	VOC	2.89	0.73
T-9705	Tank T-9705	VOC	0.20	0.01
TX-9280	Tank TX-9280	VOC	0.05	0.01
P-FLR	Plant Flare	VOC (5)	17.28	7.45
		SO_2 (5)	1030.04	467.44
		NO_x (5)	4.68	9.52
		CO (5)	20.21	37.93
		H_2S (5)	6.40	27.90
F-180	180 Unit Fugitives (4)	VOC	0.23	1.02
		H_2S 0.16	0.68	
F-196	196 Unit Fugitives (4)	VOC	0.26	1.13
		H_2S 0.01	0.06	
F-197	197 Unit Fugitives (4)	VOC	0.32	1.38
		H_2S 0.08	0.35	
F-293	293 Unit Fugitives (4)	VOC	0.01	0.01
		H_2S 0.06	0.28	
F-HZWST	Haz. Storage/Handling Fugitives (4)	VOC	0.07	0.31
		H_2S	0.01	0.02
F-DMDS	DMDS Fugitives (4)	VOC (7)	0.04	0.19
F-DMDS	DMDS Fugitives (4)	VOC (8)	0.26	1.15
		H_2S (8)	0.10	0.45

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	Emission Rates * TPY**
		Sulfur (8)	0.01	0.05
F-WST-WTR	Wastewater	VOC	0.01	0.01
S-PYRO	Pyrolysis Furnace	PM	0.01	0.01
		NO_x 0.03	0.03	
		VOC 0.02	0.02	
		SO_2 0.01	0.01	
		CO 0.05	0.05	
CT1, CT2 and CT3	Cooling Tower 1, 2, and 3	VOC (7)	0.91	1.44
		H_2S (7)	0.91	1.44
CT1, CT2, CT3, and DMDS-CT	Cooling Tower 1, 2, 3 and DMDS Unit Cooling Tower	VOC (8)	1.02	1.62
		H_2S (8)	1.22	1.93
P-DEGR	Degreaser	VOC	0.47	1.02
P-REFRIG	Refrigerant Losses	non-VOC	0.34	0.75
TANKMAINT	Plant Maintenance (Storage Tank Degassing)	VOC	3.70	0.16
P-1	Painting and Blasting Area	VOC	6.59	2.10
		PM	0.78	0.59
		PM_{10}	0.03	0.17
P-2	Painting Operation	VOC	19.81	4.90
B-1	Abrasive Blasting	PM	2.54	0.46
		PM_{10}	0.60	0.11
PUMPDIESEL1	Firewater Pump No.1	NOx	9.30	0.47
		CO	2.00	0.10
		VOC	0.75	0.04
		PM_{10}	0.66	0.03

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		SO_2	0.62	0.03
PUMPDIESEL2	Firewater Pump No.2	NOx	9.30	0.47
		CO	2.00	0.10
		VOC	0.75	0.04
		PM_{10}	0.66	0.03
		SO_2	0.62	0.03
T-DIESEL1	Diesel Tank	VOC	0.88	0.01
T-DIESEL 2	Diesel Tank	VOC	0.44	0.01
T-DIESEL 3	Diesel Tank	VOC	0.09	0.01
T-GASOLINE	Gasoline	VOC	16.48	0.06
VC-9781	Vacuum Oil Storage Tank	VOC	0.78	0.01
VH-0362	Brine Storage Tank	VOC	2.49	0.01
VH-9676	Hot Oil Storage Tank (6)	VOC	0.01	0.99
VH-9677	Hot Oil Storage Tank (6)	VOC	0.12	0.99
VH-9678	Hot Oil Storage Tank (6)	VOC	0.12	0.99
VH-9749	Hot Oil Storage Tank (6)	VOC	0.01	0.99
VH-9792	Hot Oil Storage Tank (6)	VOC	0.60	9.92
VH-9794	Hot Oil Storage Tank (6)	VOC	0.22	0.99
TTOTES1-4	Tote 1 - 4 Loading	VOC	1.22	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) PM - particulate matter, suspended in the atmosphere, including PM_{10}.
PM_{10} - particulate matter 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.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
TRS - total reduced sulfur and

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

(5) SSM (start-up, shutdown, maintenance) emissions are part of the total allowable for the flare.

(6) Only 1 (one) hot oil tank shall be loaded at any given time.

(7) Emission rates effective before the start-up of the DMDS Unit.

(8) Emission rates effective after the start-up of the DMDS Unit.

* Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations:

_____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 February 29, 2008