EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 19168 and PSD-TX-760M7

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**
Olefins Unit No. 1				
1001	Pyrolysis Furnace	CO (6)	12.23	35.97
		NO_x (6)	31.03	132.73
		PM_{10} (6)	3.86	16.16
		SO_2 (6)	0.40	1.66
		VOC (6)	4.69	12.43
1002	Pyrolysis Furnace	CO (6)	12.23	35.97
		NO_x (6)	31.03	132.73
		PM_{10} (6)	3.86	16.16
		SO_2 (6)	0.40	1.66
		VOC (6)	4.69	12.43
1003	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1004	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1005	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69

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**
1006	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1007	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1008	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1009	Decoke Drum (5)	CO (6)	76.60	17.50
		PM/PM_{10} (6)	7.05	1.62
		VOC (6)	0.01	0.01
1009B	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.66	11.69
1010B	Pyrolysis Furnace	CO (6)	8.75	28.47
		NO_x (6)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.86	12.55
1010	Cooling Tower	VOC (6)	5.46	23.92
1011	CPI Oil/Water Separator	VOC (6)	2.76	8.67

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**
1012	MAPD Regenerator 3418F	CO (6)	17.30	0.01
		VOC (6)	0.14	0.01
1018	Flare	CO (6)	9.68	42.32
		NO_x (6)	1.90	8.30
		SO_2 (6)	0.10	0.04
		VOC (6)	1.79	0.43
1019	Process Fugitives (4)	VOC (6)	0.72	3.16
1020	Naphtha Tank 6401F	VOC (6)	5.99	24.75
1028	Process Fugitives (4)	VOC (6)	27.23	119.26
1048	Slop Oil Tank 7408FA	VOC (6)	1.18	0.03
1050	H_2SO_4 Tank	H_2SO_4	0.58	0.01
1051	Flare	CO (6)	9.77	20.41
		NO_x (6)	1.14	2.38
		SO_2 (6)	0.02	0.05
		VOC (6)	0.22	0.47
7900LJD	Diesel Emergency Generator (26 hours of operation per rolling twelve months)	CO	0.44	0.01
		NO_x	0.17	13.40
		PM_{10}	0.50	0.01
		SO_2	2.06	0.04
		VOC	0.08	0.01
7900LJDF	Diesel Storage Tank	VOC	0.06	0.01
EP-7	Olefins Solvent Degreaser	VOC	0.14	0.59
PGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01

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**
PRCERCLUBE	Lube Oil Reservoir	VOC	0.16	0.01
3602J1/J2L	Lube Oil Reservoir	VOC	0.21	0.01
PGCSEAL	Seal Oil Reservoir	VOC	0.21	0.01
PRCERCSEAL	Seal Oil Reservoir	VOC	0.21	0.01
2412FCC	Caustic Sump Carbon Cannister	VOC	0.01	0.01
920766	Chemical Additive Storage Tank	VOC	1.94	0.01
920425	Chemical Additive Storage Tank	VOC	2.01	0.01
Olefins Unit No. 2				
1054	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	
1055	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	
1056	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	

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**
1057	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1058	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1059	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1060	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1061	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1062	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	

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**
1091	Pyrolysis Furnace	CO	8.54	
		NO_x	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1054-1062, 1091	Pyrolysis Furnaces Annual Caps	CO (6)		319.07
		NO_x (6)		720.54
		PM_{10} (6)		144.32
		SO_2 (6)		14.81
		VOC (6)		106.66
N1011	Pyrolysis Furnace	CO (6)	8.75	28.47
		NO_x (6)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.86	12.55
N1012	Pyrolysis Furnace	CO (6)	8.75	28.47
		NO_x (6)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.86	12.55
1063	Decoke Drum (5)	CO (6)	83.95	22.39
		PM/PM_{10} (6)	7.71	2.05
		VOC (6)	0.01	0.01
1064	Cooling Tower	VOC (6)	5.28	23.15
1065	CPI Oil/Water Separator	VOC (6)	2.76	12.09
1066	MAPD Regenerator	CO (6)	17.30	0.01
		VOC (6)	0.14	0.01

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**
1067	Flare	CO (6)	13.84	60.61
		NO_x (6)	1.92	8.39
		SO_2 (6)	0.01	0.02
		VOC (6)	7.55	33.07
1068	Process Fugitives (4)	VOC (6)	0.0	0.0
1085	Pyrolysis Fuel Oil Tank 6499FA	VOC (6)	0.83	1.79
1086	Pyrolysis Fuel Oil Tank 6499FB	VOC (6)	0.83	1.79
1087	Flare	CO (6)	12.42	54.38
		NO_x (6)	1.45	6.34
		SO_2 (6)	0.02	0.08
		VOC (6)	0.14	0.51
1088	Wash Oil Day Tank 2410F	VOC (6)	0.76	0.07
1089	Slop Oil Tank 7408FB	VOC (6)	1.18	0.03
1090	H_2SO_4 Tank	H_2SO_4	0.58	0.01
N7900LJD	Diesel Emergency Generator (26 hours of operation per rolling twelve months)	CO	3.52	0.05
		NO_x	9.13	0.12
		PM_{10}	0.49	0.01
		SO_2 1.85	0.03	
		VOC 0.09	0.01	
NPGCLUBE	Olefins II Lube Oil Reservoir	VOC	0.21	0.01
NPRCERCLUB	Olefins II Lube Oil Reservoir	VOC	0.16	0.01
N3602JLUBE	Olefins II Lube Oil Reservoir	VOC	0.21	0.01
NPGCSEAL	Olefins II Seal Oil Reservoir	VOC	0.21	0.01
N2412FCC	Caustic Sump Carbon Canister	VOC	0.01	0.01

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**
N5704LF3CC	Zimpro Carbon Canister	VOC	0.04	0.01
N7460LFCC	Polymer Inhibitor Tank Carbon Canister	VOC	0.01	0.01
N83070	Chemical Additive Storage Tank	VOC	0.05	0.01
N83071	Chemical Additive Storage Tank	VOC	0.06	0.01
N920766	Chemical Additive Storage Tank	VOC	1.94	0.01
N920425	Chemical Additive Storage Tank	VOC	2.01	0.01
N1705L2F	Chemical Additive Storage Tank	VOC	0.22	0.01
N1705L5F	Chemical Additive Storage Tank	VOC	0.22	0.01
Gasoline Hydrotreater Unit				
8001B	Regeneration Heater (438 hours per year)	CO (6)	1.92	0.42
		NO_x (6)	0.66	0.14
		PM_{10} (6)	0.17	0.04
		SO_2 (6)	0.01	0.01
		VOC (6)	0.13	0.03
8002B	Second Stage Feed Heater	CO (6)	0.70	3.09
		NO_x (6)	0.24	1.05
		PM_{10} (6)	0.06	0.28
		SO_2 (6)	0.01	0.01
		VOC (6)	0.05	0.20
8003B	Flare	CO (6)	0.0	0.0
		NO_x (6)	0.0	0.0
		SO_2 (6)	0.0	0.0
		VOC (6)	0.0	0.0

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**
8801U	Cooling Tower	VOC (6)	1.32	5.79
8801F	Process Fugitives (4)	VOC (6)	1.32	5.76
Propylene Purification Unit				
PPUFUG-1	Unloading Station Process Fugitives (4)	VOC (6)	0.23	1.01
PPUFUG-2	Process Area Process Fugitives (4)	VOC (6)	0.0	0.0
PPUFUG-3	Storage Spheres Process Fugitives (4)	VOC (6)	0.0	0.0
PPULUBE	PPU Lube Oil Resevoir	VOC	0.01	0.01
West Metering Station				
WMS-1	UCC West Metering Station Analyzer Purge	VOC	0.25	1.10

(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) CO - carbon monoxide
H_2SO_4 - sulfuric acid (98 percent)
NO_x - total oxides of nitrogen
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.
SO_2 - sulfur dioxide

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

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

(5) No more than four pyrolysis furnaces shall be decoked at any one time, two furnaces to Decoke Drum EPN 1009 and two furnaces to Decoke Drum EPN 1063.

(6) PSD pollutant

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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

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

** Compliance with the emission caps shall be based on a 12-month rolling average of emissions.