EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- DRAFT -

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 emissions 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) (8)(9)	31.03	132.73
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	4.69	12.43
1002	Pyrolysis Furnace	CO (6)	12.23	35.97
		NO_x (6) (8)(9)	31.03	132.73
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	4.69	12.43
1003	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69
1004	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
1005	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69
1006	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69
1007	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69
1008	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6) (8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	11.69
1009	Decoke Drum (5)	CO (6)(7)	153.20	27.04
		$PM/PM_{10, 2.5}$ (6) (7)	14.10	2.48
		VOC (6) (7)	0.02	0.01
1009B	Pyrolysis Furnace	CO (6)	8.20	35.92
		NO_x (6)(8)(9)	30.30	132.71
		PM_{10} (6)	3.69	16.16
		SO_2 (6)	0.38	1.66
		VOC (6)	2.67	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**
1010B	Pyrolysis Furnace	CO (6)	8.75	28.47
		NO_x (6) (8)(9)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.31	10.13
1001-1008, 1009B, 1010B,	Pyrolysis Furnace MSS	CO (6)(7)(10)	35.00	19.40
		~~NO_x (6)(7)~~	~~40.00~~	~~22.20~~
1010	Cooling Tower	VOC (6)	5.46	23.92
1011	CPI Oil/Water Separator	VOC (6)	2.76	12.09
1012	MAPD Regenerator 3418F	CO (6)	7.58	0.03
		VOC (6)	0.24	0.01
1018	Olefins 1 Elevated Flare	CO (6)	14.41	61.83
		NO_x (6)	2.77	12.13
		SO_2 (6)	0.10	0.05
		VOC (6)	3.96	13.30
1018/OL1-TEMP	Olefins 1 Elevated Flare MSS	CO (6)(7)	6206.75	54.20
		NO_x (6)(7)	858.57	7.80
		VOC (6)(7)	765.61	82.40
1020	Naphtha Tank 6401F	VOC (6)	5.99	25.80
1028	Olefins 1 Process Fugitives (4)	VOC (6)	28.03	122.76
OL1-MAINT	Olefins 1 Process Fugitives MSS (4)	VOC (6)(7)	258.07	4.10

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**
1048	Storm Water Recycle Tank 7408F	VOC (6)	1.18	0.03
1050	H_2SO_4 Tank	H_2SO_4	0.58	0.01
1051	Olefins 1 Tank Flare	CO (6)	9.84	0.70
		NO_x (6)	1.15	2.39
		SO_2 (6)	0.02	0.05
		VOC (6)	0.35	0.64
1051/OL1-TEMP	Olefins 1 Tank Flare MSS	CO (6)(7)	89.52	0.20
		NO_x (6)(7)	12.39	0.03
		VOC (6)(7)	8.05	0.02
7900LJD	Diesel Emergency Generator (52 hours of operation per rolling 12 months)	CO	0.44	0.02
		NO_x	13.40	0.34
		PM_{10}	0.50	0.02
		SO_2	2.06	0.08
		VOC	0.08	0.02
7900LJDF	Diesel Storage Tank	VOC	0.06	0.01
PGCLUBE	Lube Oil Reservoir	VOC	0.21	0.01
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
C29600	Chemical Additive Storage	VOC	1.94	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**
	Tank			
C29601	Chemical Additive Storage Tank	VOC	2.01	0.01
N83070	Chemical Additive Storage Tank	VOC	0.05	0.01
N83071	Chemical Additive Storage Tank	VOC	0.06	0.01
N79134	Chemical Additive Storage Tank	VOC	6.08	0.01
Olefins Unit No. 2				
1054	Pyrolysis Furnace	CO	12.57	
		NO_x (8)(9)	20.02	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	
1055	Pyrolysis Furnace	CO	12.57	
		NO_x(8)(9)	20.02	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	
1056	Pyrolysis Furnace	CO	12.57	
		NO_x(8)(9)	20.02	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	4.82	
1057	Pyrolysis Furnace	CO	8.54	

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**
		NO_x(8)(9)	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1058	Pyrolysis Furnace	CO	8.54	
		NO_x(8)(9)	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1059	Pyrolysis Furnace	CO	8.54	
		NO_x(8)(9)	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1060	Pyrolysis Furnace	CO	8.54	
		NO_x(8)(9)	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1061	Pyrolysis Furnace	CO	8.54	
		NO_x(8)(9)	19.29	
		PM_{10}	3.86	
		SO_2	0.40	
		VOC	2.80	
1062	Pyrolysis Furnace	CO	8.54	
		NO_x(8)(9)	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(8)(9)	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)		720.58
		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) (8)(9)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.31	10.13
N1012	Pyrolysis Furnace	CO (6)	8.75	28.47
		NO_x (6) (8)(9)	18.75	65.70
		PM_{10} (6)	3.96	17.34
		SO_2 (6)	0.41	1.78
		VOC (6)	2.31	10.13
1054-1062, 1091, N1011, N1012	Pyrolysis Furnace MSS	CO (6)(7)(10)	35.00	12.90
1063	Decoke Drum (5)	CO (6)	167.9	34.69
		PM/PM_{10} (6)	15.42	3.18
		VOC (6)	0.02	0.01
1064	Cooling Tower	VOC (6)	5.28	23.15
1065	CPI Oil/Water Separator	VOC (6)	2.76	12.09

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**
1066	MAPD Regenerator	CO (6)	7.58	0.03
		VOC (6)	0.24	0.01
1067	Olefins 2 Elevated Flare	CO (6)	22.39	98.09
		NO_x (6)	4.40	19.25
		SO_2 (6)	0.02	0.11
		VOC (6)	7.55	14.90
1067/OL2-TEMP	Olefins 2 Elevated Flare MSS	CO (6)(7)	6206.75	47.30
		NO_x (6) (7)	858.57	6.60
		VOC (6) (7)	761.65	72.60
OL2-MAINT	Olefins 2 Process Fugitives MSS	VOC (6)	237.61	1.80
1068	Olefins 2 Process Fugitives (4)	VOC (6)	27.28	119.47
1085	Pyrolysis Fuel Oil Tank N6499FA	VOC (6)	0.83	0.49
1086	Pyrolysis Fuel Oil Tank N6499FB	VOC (6)	0.83	0.49
1087	Olefins 2 Tank Flare	CO (6)	12.48	8.70
		NO_x (6)	1.46	6.35
		SO_2 (6)	0.02	0.08
		VOC (6)	0.26	0.66
1087/OL2-TEMP	Olefins 2 Tank Flare MSS	CO (6)(7)	134.29	0.09
		NO_x (6) (7)	18.59	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**
		VOC (6) (7)	53.31	0.09
1088	Wash Oil Day Tank 2410F	VOC (6)	0.91	0.09
1089	Storm Water Recycle Tank N7408	VOC (6)	1.18	0.03
1090	H_2SO_4 Tank	H_2SO_4	0.58	0.01
N7900LJD	Diesel Emergency Generator (56 hours of operation per rolling 12 months)	CO NO_x PM_{10} SO_2 VOC	3.52 9.13 0.49 1.85 0.09	0.10 0.24 0.02 0.06 0.02
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
N5704LF3CC	Zimpro Carbon Canister	VOC	0.04	0.01
N7460LFCC	Polymer Inhibitor Tank Carbon Canister	VOC	0.01	0.01
N920766	Chemical Additive	VOC	1.94	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**
	Storage Tank			
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 (1000 hours per year)	CO (6)	1.92	0.96
		NO_x (6)	0.66	0.33
		PM_{10} (6)	0.17	0.09
		SO_2 (6)	0.02	0.01
		VOC (6)	0.13	0.07
8002B	Second Stage Feed Heater	CO (6)	0.70	3.09
		NO_x (6)	0.24	1.05
		PM10 (6)	0.06	0.28
		SO_2 (6)	0.01	0.01
		VOC (6)	0.05	0.20
8003B	GHU Flare	CO (6)	1.28	5.13
		NO_x (6)	0.62	2.56
		SO_2 (6)	0.01	0.02
		VOC (6)	1.37	4.60
8003B/OL1-TEMP	GHU Flare MSS	CO (6)(7)	89.52	0.10
		NO_x (6)(7)	12.39	0.01
		VOC(6)(7)	699.63	0.78

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)	1.00	4.38
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)	9.24	40.46
PPUFUG-3	Storage Spheres Process Fugitives (4)	VOC (6)	2.12	9.26
PPULUBE	PPU Lube Oil Reservoir	VOC	0.01	0.01
West Metering Station				
WMS-1	UCC West Metering Station Analyzer Purge	VOC	0.25	1.10

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**

(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
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
H_2SO_4 - sulfuric acid (98 percent)
(4) Fugitive emission rates are an estimate only and should not be considered as a maximum allowable emission rate.
(5) No more than eight pyrolysis furnaces shall be decoked at any one time, four furnaces to Decoke Drum EPN 1009, and four furnaces to Decoke Drum EPN 1063.
(6) PSD pollutant
(7) Planned Maintenance, Startup, Shutdown, (MSS) Emissions as Described in the Permit Special Conditions (02/10)
(8) Annual NOx emissions from pyrolysis furnace MSS activities are authorized as part of the annual allowable for each furnace.
(9) Hourly emissions of NOx from these furnaces may be up to 3 lbs/hr higher than the normal emissions allowable during MSS activities, as limited by Special Condition 44.
(10) CO hourly emission allowable is per furnace. CO annual emission allowable is total for all furnaces.
* 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.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Dated