EMISSION SOURCES - EMISSIONS CAPS

Flexible Permit Numbers 9708 and PSD-TX-861M2

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.

(See Attachment I for Source Name and Emission Point Number Index)

Emission Source Category	Year	Emission Rates* lb/hr	TPY**
VOC CAPS:			
Combustion Units, Tanks, Process Vents, Loading, Flares, Fugitives, Wastewater, Cooling Towers, Engines, Relief Valves, Maintenance	Initial	2,202.9	1,283.9
	Final	2,333.9	1,741.0
NO_X CAPS:			
Combustion Units, Flares, Process Vents, Loading, Engines, Maintenance	Initial	961.0	3,536.6
	Final	574.8	2,001.4
CO CAPS:			
Combustion Units, Flares, Process Vents, Loading, Engines, Maintenance	Initial	1,413.0	3,129.3
	Final	1,607.1	3,841.9
SO_2 CAPS:			
Combustion Units, Flares, Process Vents, Loading, Engines, Maintenance	Initial	1,648.4	4,732.5
	Final	1,243.1	2,919.7
PM CAPS:			
Combustion Units, Flares, Process Vents, Engines, Maintenance	Initial	365.9	1,567.6
	Final	156.7	644.2
BENZENE CAPS:			
Tanks, Cooling Towers, Loading, Fugitives	Initial	1.3	4.9
	Final	2.4	6.6

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

H_2S CAPS:				
Flares, Process Vents, Fugitives, Maintenance	Initial	10.4		19.6
	Final	7.6		7.1
SULFURIC ACID CAPS:				
Process Vents	Initial	10.6		46.6
	Final	12.4		54.1
CHLORINE CAPS:				
Process Vents	Initial	4.3		0.4
	Final	0.4		0.5
HCl CAPS:				
Process Vents, Maintenance	Initial	20.4		4.0
	Final	7.1		4.3
NH_3 CAPS:				
Process Vents, Fugitves, Maintenance	Initial	800.3		164.6
	Final	800.4		164.8

MAINTENANCE EMISSIONS CAPS: (5)

		Year	lb/hr	TPY**
VOC	(5)		1102.6	3.21
NO_X	(5)		54.8	0.09
CO	(5)		383.6	0.66
SO_2	(5)		504.8	1.22
H_2S	(5)		6.3	0.01
HCl	(5)		4.0	0.002
NH_3	(5)		700	0.95

(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.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1.
NO_x - total oxides of nitrogen

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

SO_2 - sulfur dioxide
PM - particulate matter
CO - carbon monoxide
NH_3 - ammonia
H_2S - hydrogen sulfide
HCl - hydrogen chloride
Cl_2 - chlorine

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

(5) Emissions from maintenance activities authorized by this permit shall not exceed these rolling 12-month caps. These emissions are also included, where noted, in the preceding individual contaminant category caps. The maintenance emissions are the same from year to year - no difference between initial and final.

* Emission rates are based on operating 8,760 hrs/year.

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

Dated October 1, 2004

ATTACHMENT I

SOURCE CATEGORIES, EMISSION POINT NUMBERS
AND SOURCE NAMES

Flexible Permit Numbers 9708 and PSD-TX-861M2

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.

Source Category	Emission Point No. (1)	Source Name (2)
COMBUSTION SOURCES:		
	B-10	No. 18 Boiler
	B-11	No. 19 Boiler
	B-12	600# Boiler
	B-19	New 300# Steam Boiler No. 1
	B-20	New 300# Steam Boiler No. 2
	B-21	New 300# Steam Boiler No. 3
	B-3	No. 10 Boiler
	B-4	No. 11 Boiler
	B-5	No. 12 Boiler
	B-6	No. 13 Boiler
	B-7	No. 14 Boiler
	B-8	No. 15 Boiler
	B-9	No. 16 Boiler
	H-1	No. 1 Crude Charge Heater
	H-11	No. 2 Crude Charge-Anderson
	H-13	GO Fractionator Heater
	H-14	Unifiner Charge Heater
	H-15	No. 1 Nap. Hydrotreater DeS_2 Reboiler
	H-17	No. 3 Hydrotreater Charge Heater
	H-18	No. 1 Reformer Charge Heater (Charge, 3, 4
	H-2	No. 1 Vacuum Heater
	H-21	No. 1 H_2 Primary Reformer Heater
	H-22	No. 2 H_2 Primary Reformer Heater
	H-24	TAME Unit NRU Regeneration Heater

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

H-26	No. 2 Vacuum Heater
H-27	PP Mol. Sieve Regeneration Heater
H-28	Active Butane Oxygenate Heater
H-29	Asphalt Circulation Heater (Tks. 5501, 5502, 5503)
H-30	Asphalt Tank Heaters 5501, 5502, 5503 (6 stacks)
H-31B	Asphalt Tank Heaters 27, 28 (2 stacks)
H-32	Asphalt Tank Heaters 20M5, 20M6 (6 stacks)
H-32C	Asphalt Tank Heaters 20M7
H-33	Asphalt Tank Htrs. 34, 121, 141, 551, 552 (7 stacks)
H-34	No. 1 Reformer Stabilizer Reboiler
H-35	Asphalt Tank Heater 300M2 (4 stacks)
H-36	No. 2 Naphtha Hydrotreater DeS_2 Reboiler
H-37	No. 4 Hydrotreater Stripper Reboiler Heater
H-38	No. 2 Reformer Charge Heater (Charg, 3, 4
H-39	No. 2 Reformer Stabilizer Reboiler
H-4	Asphalt Tank Heater for 5503
H-40	No. 1 PDA Asphalt Heater (Asphalt-South)
H-41	No. 2 Crude Charge-Born
H-42	HCU Recycle Heater
H-43	HCU DeC_4 Reboiler Heater
H-45	No. 1 Naphtha Hydrotreater Charge Heater
H-46	No. 1 Reformer No. 1 Interheater
H-47	Asphalt Blowstill Heater
H-48	Turbine Fuel HDSU Heater
H-5	No. 2 PDA Aphalt Heater (Asphalt-North)
H-51	Asphalt Tank Heater 300M3 (4 stacks)
H-52	Trash Incinerator
H-55	No. 1 Hydrogen Plant Startup Heater
H-56	No. 2 Hydrogen Plant Startup Heater
H-6	DAGO Heater
H-64	No. 4 Hydrotreater Charge Heater
H-65	No. 4 Hydrotreater Splitter Reboiler Heater

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

H-70	No. 2 Crude Charge Heater
H-71	No. 3 Vacuum Heater
H-72	PDA Asphalt Heater
H-73	HCU Fractionator Charge Heater
H-74	HCU Recycle Gas Heater
H-75	HCU DeC_4 Reboiler Heater
H-76	Diesel Hydrotreater Charge Heater
H-77	No. 1 Reformer Charge Heater
H-78	No. 1 Reformer Interheaters
H-79	No. 1 Ref. Stabilizer Reboiler
H-8	No. 3 Crude Heater-PetroChem (North)
H-80	FCC Gas HDS Charge Heater
H-81	C_4 Isom Heater
H-82	Coker Heater
H-83	Polymer Modified Asphalt Heater
H-84	No. 2 Reformer No. 1 Interheater
H-85	No. 2 Ref. Stab. Reboiler
H-86	No. 2 Naptha Hydrotreater Charge Heater
H-87	SRU No. 3 Hot Oil Heater
H-9	No. 3 Crude Heater-PetroChem (South)

STORAGE TANKS

S-001	Tank 120M1
S-002	Tank 133
S-003	Tank 134
S-004	Tank 139
S-005	Tank 150M1
S-006	Tank 157
S-007	Tank 168
S-008	Tank 1001
S-009	Tank 1003

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

S-010	Tank 1501
S-011	Tank 1502
S-012	Tank 3001
S-013	Tank 3002
S-014	Tank 6701
S-015	Tank 6702
S-016	Tank 31
S-017	Tank 138
S-018	Tank 161
S-019	Tank 163
S-020	Tank 167
S-021	Tank 101
S-022	Tank 120M2
S-023	Tank 120M3
S-024	Tank 126
S-025	Tank 151
S-026	Tank 165
S-027	Tank 166
S-028	Tank 2
S-031	Tank 100M2
S-032	Tank 140
S-033	Tank 145
S-034	Tank 146
S-035	Tank 147
S-037	Tank 21
S-038	Tank 22
S-039	Tank 130
S-040	Tank 148
S-042	Tank 162
S-043	Tank 164
S-044	Tank 144

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

S-045	Tank 127
S-046	Tank 142
S-048	Tank 154
S-049	Tank 155
S-052	Tank 128
S-053	Tank 222
S-055	Tank 1
S-056	Tank 137
S-057	Tank 441
S-058	Tank 442
S-059	Tank 23
S-060	Tank 24
S-063	Tank 27
S-064	Tank 28
S-065	Tank 29
S-066	Tank 30
S-067	Tank 32
S-068	Tank 33
S-069	Tank 34
S-070	Tank 121
S-071	Tank 141
S-072	Tank 551
S-073	Tank 552
S-074	Tank 5501
S-075	Tank 5502
S-076	Tank 5503
S-086	Tank 143
S-090	Tank 4
S-095	Tank 100
S-137	Tank 20M5
S-138	Tank 20M6

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

S-139	Tank 125
S-140	Tank 181
S-141	Tank 182
S-142	Tank 232
S-143	Tank 5505
S-144	Tank 5504
S-150	Tank 300M1
S-168	N Lube Tank (T-9)
S-173	3rd from S Lube Tank (T-3)
S-174	2nd from S Lube Tank (T-2)
S-175	S. Lube Tank (T-1)
S-176	Tank 200M1
S-177	Tank 300M2
S-179	Latex Tank 1
S-180	Latex Tank 2
S-183	Tank 120M4
S-184	Tank 940T1
S-186	Tank 80M1
S-187	Tank 150M2
S-192	Tank 20M7
S-194	Tank 300M3
S-195	Tank T101
S-196	Tank T102
S-197	Tank T109
S-198	DGF Effluent (Tank T111)
S-199	WW Holding (Tank T115)
S-200	Tank 5506
S-202	Tank 100M3
S-203	Tank 150M3
S-204	Tank 150M4
S-209	Tank 200M2

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

S-210	Tank 200M3
S-211	Tank 150M5
S-212	Tank 150M6
S-213	Tank 100M4
S-214	Tank 100M5
S-215	Tank 100M6
S-216	Tank 100M7
S-217	Tank 100M8
S-218	Tank 100M9
S-219	Tank 100M10
S-220	Tank 50M1
S-221	Tank 50M2
S-222	Tank 25M1
S-223	Tank 25M2
S-224	Tank 940T2
S-225	PMA Wetting Tank

PIPING COMPONENT FUGITIVES

F-1CRUDE	No. 1 Crude/Vacuum Unit Fugitives
F-1NH3	No. 1 H_2/NH_3 Plant Fugitives
F-1REF_HT	No. 1 Naphtha HDS/Reformer Fugitives
F-2ALKY	No. 2 Alky Unit Fugitives
F-2CRUDE	No. 2 Crude/Vacuum Unit Fugitives
F-2NH3	No. 2 H_2/NH_3 Plant Fugitives
F-2REF_HT	No. 2 Naphtha HDS/Reformer Fugitives
F-3CRUDE	No. 3 Crude/Vacuum Unit Fugitives
F-3HT	No. 3 Hydrotreater
F-4HT	No. 4 Naphtha Hydrotreater Fugitives
F-85	Cleaning Slab
F-ALKY_PDA	Alky and PDA Unit Fugitives
F-ASPHALT	Heavy Oil Blending

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

F-BRINE	Brine Pond Fugitives
F-C4ISOM	C_4 Isom Unit Fugitives
F-CASING	Cavern Well Casing Maintenance
F-CAVERN	Storage Cavern Wellhead Fugitives
F-COKE_VOC	Coker Fugitives
F-DESALT	Desalter Water Stripper
F-DHDSU	Diesel HDS Unit
F-ETNKFRM	East Tank Farm Fugitives
F-FCCU	FCCU Fugitives
F-GASBLD	Gasoline Blending Fugitives
F-GASPLT	Gas Plant Fugitives
F-GHDS	Gasoline HDS Fugitives
F-HCU	HCU Fugitives
F-HDS_GOF	GOF Fugitives
F-LPG	LPG Storage Fugitive
F-MTBE	MTBE Fugitives
F-NBULKLD	Loading Fugitives
F-NTNKFRM	North Tank Farm Fugitives
F-ORU	Oil Recovery Unit Fugitives
F-PENEX	Isomerization Unit Fugitives
F-PMA	Polymer Modified Asphalt Fugitives
F-PSA	Hydrogen Pressure Swing Absorption
F-PUMPSTA	Pump Station Fugtives
F-RAILLOAD	Railroad Loading Rack Fugitives
F-RLE	Light Ends Unit Fugitives
F-SBULKLD	Bulk Loading Terminal Fugitives
F-SRU1	No. 1 SRU Fugitives
F-SRU2	No. 2 SRU Fugitives
F-SRU3	No. 3 SRU Fugitives
F-SWS	Sour Water Stripper Fugitives
F-TAME	TAME Unit Fugitives

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

F-UNIFINER	Unifiner Unit Fugitives
F-WTNKFRM	West Tank Farm Fugitives
F-WWTP	Wastewater Treatment Fugitives

PRODUCT LOADING

L-11	Truck Loading Rack
L-13	Railcar Loading Rack
L-2	Asphalt Truck Loading Rack (Asphalts)
L-5	Railcar Rack (Diesel)
L-7	Asphalt Railcar Rack

MAINTENANCE

All Flares, All Storage Tanks (in VOC service <0.5 psia vapor pressure materials), and Piping Component Fugitive Areas (pump seal maintenance)

PROCESS VENTS

V-10	CO_2 Plant Vent (CO_2 release only)
V-11	MEA Still CO_2 Plant Vent
V-13	Soda Ash Silo
V-14	Water Treater Lime Silo
V-15	Boiler House Lime Silo
V-16	SRU No. 2 Incinerator
V-17	FCC Catalyst Silo Vent
V-18	No. 1 Reformer Regeneration Vent
V-20	FCC Stack Vent
V-21	No. 2 Reformer Regeneration Vent
V-22	Asphalt Blowstill Vent
V-26	Enviroguard Silo Vent
V-28	SRU No. 3 Incinerator
V-29	Sulfuric Acid Plant Stack
V-30	PMA Scrubber Stack
V-5	SRU No. 1 Incinerator

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

V-6	Acid Plant Mist Eliminator Vent
V-8	No.1 NH_3 Plant CO_2 Stripper Vent (regeneration)
V-9	No.2 NH_3 Plant CO_2 Stripper Vent (regeneration)

RELIEF VALVES

Tank 326	Relief Valve on LPG Tank
Tank 327	Relief Valve on LPG Tank
Tank 328	Relief Valve on LPG Tank
Tank 329	Relief Valve on LPG Tank
Tank 330	Relief Valve on LPG Tank

CAS SUMPS

CAS1	Oily Sump #7 CAS
CAS2	Crude Sump CAS
CAS3	Tank Farm CAS (150M2)
CAS4	Tank Farm CAS (150M1)
CAS5	P&T Crude Sump 1
CAS6	P&T Crude Sump 2
CAS7	Railcar Sump

ENGINES

E-1	No. 1 RLE Compressor Engine
E-2	No. 2 RLE Compressor Engine
E-5	PDA Propane Compressor Engine
E-7	Unifiner (Clark) Compressor Engine
E-8	Diesel H.T. #1 Compressor Engine
E-9	Diesel H.T. #2 Compressor Engine

FLARES

FL-1	No. 1 Main Refinery Flare
FL-3	FCCU Flare
FL-4	HCU Flare
FL-6	Wastewater Flare

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

FL-7	Loading Rack Vapor Combustor
FL-8	No. 2 Main Refinery Flare
FL-9	Brine Flare

COOLING TOWERS

F-20	No. 1 Refinery Cooling Tower
F-47	No. 2 Refinery Cooling Tower
F-93	No. 3 Refinery Cooling Tower
F-22	No. 3 NH_3 Plant Cooling Tower
F-21	Gasoline Plant Cooling Tower

ATTACHMENT I - SOURCE CATEGORIES, EMISSION POINT NUMBERS AND SOURCE NAMES

COKE HANDLING

F-COKE_PM Coke Handling Fugitives

(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.

Dated October 1, 2004