EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20686

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
CTCOOLT03	Cooling Tower No. 2	VOC	0.13	0.55
CTCOOLT04	Cooling Tower No. 3	VOC	0.17	0.74
CTCOOLT05	Cooling Tower No. 6	VOC	0.13	0.55
EEFIREWA02	P-175 Engine	VOC	0.28	0.12
		NO_x	3.57	1.52
		CO	0.77	0.33
		SO_2	0.24	0.10
		PM	0.25	0.11
EEFIREWB02	P-2 Engine	VOC	0.57	0.24
		NO_x	7.13	3.03
		CO	1.54	0.65
		SO_2	0.47	0.20
		PM	0.51	0.22
FCWELL04	Material Handling Fugitives (4)	PM		<0.01
	<0.01			
FECUIIP04	335 Unit Flare	VOC	0.57	1.26
		NO_x	1.18	4.01
		CO	4.69	15.98
		SO_2	0.91	4.00
FECUIIP04	Decoking	CO	0.76	0.53
		PM	0.33	0.23

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
FEEVFL02	314 Unit Flare	VOC	1.90	5.24
		NO_x	0.34	1.14
		CO	1.35	4.52
		SO_2	2.60	7.13
FETKFLR02	Tank Vent Flare	VOC	54.46	12.99
		NO_x	6.31	1.60
		CO	25.12	6.38
		HCl	0.73	0.04
		SO_2	18.94	6.62
FU1DU01	346 Unit Fugitives (4)	VOC	0.02	0.09
FU4BOLS01	No. 4 Boiler System Fugitives (4)	VOC		0.01
	0.04			
FUBARGE01	Barge Fugitives (4)	VOC	<0.01	<0.01
FUBAYOU01	Bayou Tank Farm Fugitives (4)	VOC		0.03
	0.13			
FUC09DU01	345 Unit Fugitives (4)	VOC	0.02	0.09
FUC21DU01	343 Unit Fugitives (4)	VOC	0.03	0.14
FUC25DU01	342 Unit Fugitives (4)	VOC	0.02	0.08
FUC27DU01	341 Unit Fugitives (4)	VOC	0.02	0.10
FUC33DU01	344 Unit Fugitives (4)	VOC	0.02	0.08
FUC35DU01	347 Unit Fugitives (4)	VOC	0.02	0.08
FUCAS1201	CA Storage Area 12 Fugitives (4)	VOC		<0.01
	0.02			

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	*
FUCAS1601	CA Storage Area 16 Fugitives (4)	VOC	0.01	0.05	
FUCAS1701	CA Storage Area 17 Fugitives (4)	VOC	<0.01	<0.01	
FUCRS19A01	Crude Acid Storage Area Fugitives (4)	VOC	<0.01	0.01	
FUCAS19B01	CA Storage Area 19B Fugitives (4)	VOC	0.02	0.08	
FUCAS29A01	CA Storage Area 29A Fugitives (4)	VOC	<0.01	0.02	
FUCAS33B01	CA Storage Area 33B Fugitives (4)	VOC	0.01	0.06	
FUCAS33C01	CA Storage Area 33C Fugitives (4)	VOC	<0.01	0.02	
FUCAS33D01	CA Storage Area 33D Fugitives (4)	VOC	<0.01	0.03	
FUCAS33E01	CA Storage Area 33E Fugitives (4)	VOC	<0.01	0.03	
FUCAS9701	CA Storage Area 97 Fugitives (4)	VOC	<0.01	0.02	
FUCLUPS01	348 Unit Storage Fugitives (4)	VOC	<0.01	0.03	
FUCLUPU01	348 Unit Fugitives (4)	VOC	0.01	0.06	

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
FUCO2SU01	321 Unit Fugitives (4)	VOC	0.11	0.47
FUCOLATS01	Carbolate Storage Fugitives (4)	VOC	0.03	0.12
FUCOOLT01	Cooling Tower	VOC	<0.01	0.02
FUCRAS601	Crude Acid Storage 6 Fugitives (4)	VOC	0.01	0.05
FUCRAS801	Crude Acid Storage Area 8 Fugitives (4)	VOC	<0.01	0.01
FUCRUDU01	333 Unit Fugitives (4)	VOC	0.12	0.50
FUCSNPS01	Caustic and Nap Oil Storage Fugitives (4)	VOC	0.04	0.15
FUCUIIP01	335 Unit Process Fugitives (4)	VOC	0.02	0.09
FUCUIIS01	335 Unit Storage Fugitives (4)	VOC	0.03	0.11
FUCYCBS01	Cresylate/Carbolate Storage Fugitives (4)	VOC	0.14	0.59
FUDRUM01	Drum Loading Fugitives (4)	VOC	<0.01	0.01
FUDRYU01	MP85 Unit Fugitives (4)	VOC	<0.01	0.02
FUEVAP01	314 Unit Fugitives (4)	VOC	0.02	0.08

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
FUEVFL01	314 Unit Flare Fugitives (4)	VOC	0.20	0.88
FUEXTRU01	313 Unit Fugitives (4)	VOC	0.32	1.38
FUFIREWA01	Firewater House A Fugitives (4)	VOC	<0.01	0.01
FUFIREWB01	Firewater House B Fugitives (4)	VOC	<0.01	0.01
FUGAST01	Gas Storage Fugitives (4)	VOC	0.06	0.27
FUIEXU01	332 Unit Fugitives (4)	VOC	0.02	0.08
FULAB01	Lab Sump Fugitives (4)	VOC	<0.01	0.01
FUMPTU01	351 Unit Fugitives (4)	VOC	0.69	3.04
FUNBEX01	316 Unit Fugitives (4)	VOC	0.13	0.57
FUOXRU01	349 Unit Fugitives (4)	VOC	0.04	0.16
FUPAHRU01	PAHR Unit Fugitives (4)	VOC	0.10	0.42
FUPWNOS01	Process Water and Nap Oil Storage Fugitives (4)	VOC	0.16	0.70
FUPWS1801	Process Water Storage T-18 Fugitives (4)	VOC	0.02	0.09
FUPWS22201	Process Water Storage T-222 Fugitives (4)	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
FUPWS22301	Process Water Storage T-223	VOC	0.08	0.33
	Fugitives (4)			
FURLU37A01	Rail Loading/Unloading Area 37A	VOC	0.01	0.05
	Fugitives (4)			
FURLU37B01	Rail Loading/Unloading Area 37B	VOC	0.02	0.09
	Fugitives (4)			
FURLU37C01	Rail Loading/Unloading Area 37C	VOC	<0.01	0.02
	Fugitives (4)			
FURLU37D01	Rail Loading/Unloading Area 37D	VOC	0.09	0.37
	Fugitives (4)			
FUHSRU01	336 Unit Fugitives (4)	VOC	0.02	0.10
FURMDSOS01	Raw Material/Disulfide Storage	VOC	0.12	0.50
	Fugitives (4)			
FURSDUS01	Residue Storage Fugitives (4)	VOC	<0.01	0.02
FUSAPOU01	329 Unit Fugitives (4)	VOC	<0.01	0.01
FUSRU01	315 Unit Fugitives (4)	VOC	0.27	1.20
FUSWETU01	301 Unit Fugitives (4)	VOC	0.35	1.51

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
FUT22701	T-227 Area Fugitives (4)	VOC	0.01	0.05
FUT27501	T-275 Area Fugitives (4)	VOC	<0.01	0.01
FUTKFLR01	Tank Vent Flare Fugitives (4)	VOC	0.35	1.53
FUTLU85B01	Tank Truck Loading/Unloading Area 85B (4)	VOC	<0.01	0.02
FUTTLU2401	Tank Truck Loading/Unloading Area 24 (4)	VOC	0.03	0.12
FUVAFU01	334 Unit Fugitives (4)	VOC	0.01	0.05
FUWASHU01	313 Unit Fugitives (4)	VOC	0.12	0.52
FUWELFS01	361 Unit Feed Storage Fugitives (4)	VOC	0.05	0.23
FUWELFS201	361 Unit Storage Fugitives (4)	VOC	0.06	0.24
FUWELL01	361 Unit Fugitives (4)	VOC	0.01	0.05
FUTLU85B02	351 Unit Loading Fugitives (4)	VOC	0.14	<0.01
FUTTLU2402	Tank Truck Loading Losses	VOC	21.66	1.02
FURLU37B02	Railcar Spots 12-20 Loading Losses	VOC	21.66	2.23

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
FURLU37D02	Railcar Spots 27-32 Loading Losses 0.85	VOC	21.66	
HE1DU02	Heater H-2	VOC	0.04	0.16
		NO_x	0.64	2.81
		CO	0.14	0.59
		SO_2	0.03	0.12
		PM	0.08	0.33
HEC21DU02	Heater H-21	VOC	0.07	0.31
		NO_x	1.70	7.44
		CO	0.42	1.86
		SO_2	0.05	0.23
		PM	0.17	0.75
HEC25DU02	Heater H-25	VOC	0.07	0.29
		NO_x	1.56	6.83
		CO	0.39	1.71
		SO_2	0.05	0.21
		PM	0.16	0.68
HEC27DU02	Heater H-27	VOC	0.26	1.13
		NO_x	2.74	11.98
		CO	1.55	6.78
		SO_2	0.19	0.83
		PM	0.62	2.71
HEC33DU02	Heater H-8	VOC	0.07	0.31
		NO_x	1.70	7.44
		CO	0.42	1.86
		SO_2	0.05	0.23
		PM	0.17	0.75
HEC35DU02	Heater H-347001	VOC	0.15	0.64

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	1.56	6.83
		CO	1.54	6.73
		SO_2	0.11	0.47
		PM	0.35	1.55
HEC9DU02	Heater H-1	VOC	0.04	0.16
		NO_x	0.63	2.76
		CO	0.13	0.58
		SO_2	0.03	0.12
		PM	0.08	0.33
HECRUDU02	Heater H-7	VOC	0.10	0.42
		NO_x	2.31	10.11
		CO	0.58	2.53
		SO_2	0.07	0.31
		PM	0.23	1.01
HECRUDU03	Heater H-5	VOC	0.09	0.39
		NO_x	0.94	4.10
		CO	0.92	4.04
		SO_2	0.07	0.29
		PM	0.21	0.93
HECUIIP02	Heater H-33501	VOC	0.03	0.14
		NO_x	0.09	0.41
		CO	0.08	0.36
		SO_2	0.02	0.10
		PM	0.07	0.29
HECUIIP03	Heater H-33502	VOC	0.05	0.01
		NO_x	0.01	0.04
		CO	0.01	0.04
		SO_2	<0.01	0.01
		PM	0.01	0.03

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
HEHSRU02	Heater H-366001	VOC	0.08	0.35
		NO_x	0.85	3.73
		CO	0.84	3.68
		SO_2	0.06	0.26
		PM	0.19	0.85
HEMPTU02	Heater H-800	VOC	0.04	0.15
		NO_x	0.61	2.67
		CO	0.13	0.56
		SO_2	0.03	0.12
		PM	0.07	0.32
HEOXRU13	Heater H-349001	VOC	0.33	1.45
		NO_x	3.53	15.45
		CO	3.48	15.24
		SO_2	0.24	1.07
		PM	0.80	3.50
IEPAHRU02	Heater H-41	VOC	7.57	3.62
		NO_x	3.02	2.34
		CO	0.75	0.58
		SO_2	79.49	42.60
		PM	0.29	0.23
SE4BOLS02	No. 3 Boiler Stack	VOC	9.41	26.00
		NO_x	26.08	103.93
		CO	10.15	40.36
		SO_2	41.30	41.98
		PM	3.82	15.28
HE2BOIL02	Boiler No. 2	VOC	0.43	1.88
		NOx	4.82	21.13
		CO	5.86	25.66
		SO2	0.33	1.46
		PM	0.59	2.60

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
SE4BOLS03	SO_2 Absorber Stack	VOC	7.84	19.83
		NO_x	5.01	20.41
		CO	3.01	12.81
		SO_2	1.61	4.34
		PM	1.20	5.13
SEBAYOU02	Scrubber S-1002	VOC	0.27	0.01
SEBAYOU03	Scrubber S-1000	VOC	0.65	0.04
SEC09DU08	Scrubber S-24	VOC	1.28	0.37
SEC21DU07	Scrubber S-141	VOC	0.33	0.09
SEC25DU03	Scrubber S-25	VOC	0.29	0.11
SECAS1607	Scrubber S-86	VOC	0.36	0.02
SECAS133B10	Scrubber S-78	VOC	6.73	0.07
SECAS33D08	Scrubber S-82	VOC	0.29	0.02
SECAS33E07	Scrubber S-5	VOC	0.16	0.01
SECAS9702	Scrubber S-260	VOC	1.22	0.08
SECLUPS02	Scrubber S-18	VOC	2.19	0.30
SECO2SU02	Scrubber S-580	VOC	1.59	0.11
SECO2SU04	Scrubber S-502	VOC	0.34	0.95
SECO2SU05	Scrubber S-501	VOC	0.83	0.94

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
SECOLATS03	Scrubber S-171		VOC	0.92	0.16
SECOLATS04	Scrubber S-172		VOC	42.71	6.83
SECOLATS05	Scrubber S-174		VOC	0.53	0.34
SECRAS602	Scrubber S-83		VOC	0.07	0.07
SEIEXU02	Scrubber S-917		VOC	0.11	0.04
SEMPTU03	Scrubber S-807	(5)	VOC	13.96	1.68
SEMPTU03	Scrubber S-807	(6)	VOC	0.06	
SENBEX02	Scrubber S-960		VOC	0.08	0.36
SEOXRU03	Scrubber S-310		VOC	0.44	0.16
SEPWNOS03	Scrubber S-601		VOC	29.59	1.23
SESAPOU02	Scrubber S-927		VOC	0.05	<0.01
SET27504	Scrubber S-275		VOC	0.05	<0.01
SEWELFS03	Scrubber S-234		VOC	0.07	0.04
VEBARGE02	Tank T-1009		VOC	7.48	0.10
VEBARGE03	Tank T-1014		VOC	0.05	<0.01
VECLUPU02	Column C-11		VOC	<0.01	<0.01
VECOOLT02	Tank T-950		VOC	<0.01	<0.01
VEFIREWA03	Tank T-1012		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
VEFIREWB03	Tank T-1013	VOC	0.06	<0.01
VEGAST02	Tank T-1010	VOC	0.14	<0.01
VEGAST03	Tank T-1011	VOC	24.01	0.25
VEIEXU04	Tank T-910	VOC	<0.01	<0.01
VEMPTU05	Tank T-810	VOC	<0.01	<0.01
VEMPTU06	Tank T-811	VOC	<0.01	<0.01
VEPWS2202	Tank T-222	VOC	0.01	<0.01
VERMDSOS02	Tank T-163	VOC	5.91	1.51
VERMDSOS03	Tank T-164	VOC	5.91	1.51
VEWELL02	F-603/F-604 Vent	VOC	11.87	1.74
VEIEXU08	Tank T-906	VOC	<0.01	<0.01
VEIEXU03	Tank T-908	VOC	<0.01	<0.01
VEIEXU09	Tank T-907	VOC	<0.01	<0.01
VEIEXU10	Tank T-909	VOC	<0.01	<0.01
VERSDUS02	Tank T-190/191	VOC	0.13	0.01
CCVDU06	Carbon Canister	VOC	0.04	<0.01
CTVDU05	TTI Cooling Tower	VOC	0.07	0.32

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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
HEVDU02	TTI Heater	VOC	0.02	0.06
		NO_x	0.25	1.10
		CO	0.05	0.23
		SO_2	<0.01	<0.01
		PM	0.03	0.13
FUVDU01	TTI Fugitives (4)	VOC	0.01	0.02
		SO_2	4.00	2.20
VEVDU03	Product Loading	VOC	1.12	0.08
VEVDU04	Raw material unloading	VOC	1.46	0.44
VECAS33E05	Tank T-54	KOH	<0.01	<0.01
VECSNPS02	Tank T-211017	NaOH	<0.01	<0.01
VECSNPS03	Tank T-211028	NaOH	<0.01	<0.01
VECSNPS04	Tank T-211029	NaOH	<0.01	<0.01
VEMPTU07	Tank T-825	H_2SO_4	<0.01	<0.01
VESAS02	Tank T-93	H_2SO_4	<0.01	<0.01
VEMPTU04	Tank T-806	KOH	<0.01	<0.01

(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) VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide

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 - 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 particulate matter greater than 10 microns is emitted.
CO - carbon monoxide
NaOH - sodium hydroxide
H_2SO_4 - sulfuric acid
HCl - hydrogen chloride
KOH - potassium hydroxide

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

(5) Allowable emissions from EPN SEMPTU03 when the MPT vent chiller and Scrubber S-807 are operational.

(6) Allowable emissions from EPN SEMPTU03 when the MPT vent chiller and Scrubber S-807 are shut down.

Emissions from individual hazardous air pollutants (HAPs) under this permit shall not exceed 4.34 TPY and total HAPs may not exceed 18.97 TPY. All individual speciated emissions shall conform to representations listed in the Attachment 2, Revised HAPs Emission Summary, contained in the December 19, 1997 submittal.

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

_____Hrs/day _____Days/week _____Weeks/year or _____Hrs/year

Dated_____