EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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Permit Numbers 46396 and PSD-TX-1073

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
06VDU2CHTR	VDU-2 Heater	NO_x	3.30	13.01
		CO	3.89	15.32
		SO_2	2.83	3.49
		PM	0.74	2.34
		VOC	0.52	2.28
30CKRHTR1	CU - Heater 1	NO_x	2.25	8.87
		CO	7.95	31.33
		SO_2	6.44	7.14
		PM	1.68	4.79
		VOC	1.19	4.67
30CKRHTR2	CU - Heater 2	NO_x	2.25	8.87
		CO	7.95	31.33
		SO_2	6.44	7.14
		PM	1.68	4.79
		VOC	1.19	4.67
43DHT3CHTR	DHT-3 Charge Heater (18)	NO_x	1.65	6.50
		CO	1.94	7.66
		SO_2	1.42	1.75
		PM	0.37	1.17
		VOC	0.26	1.14

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25SRUINCIN	SRU Complex Tail Gas Incinerator	NO_x	3.20	11.21
		CO	37.40	43.69
		SO_2	61.49	179.23
		PM	0.30	1.04
		VOC	0.22	0.76
		H_2S	0.03	0.10
22TANK0441	Tank 441	VOC	0.25	3.36
22TANK0516	Tank 516	VOC	0.03	0.36
22TANK0522	Tank 522 (7) (8)	VOC	0.03	0.06
22TANK0526	Tank 526	VOC	0.17	0.67
22TANK0537	Tank 537	VOC	0.05	0.02
22TANK0545	Tank 545	VOC	0.03	0.66
22TANK0586	Tank 586 (8)	VOC	0.03	0.26
22TANK0587	Tank 587 (7)	VOC	4.25	6.49
22TANK0588	Tank 588	VOC	0.09	0.18
22TANK0591	Tank 591	VOC	0.11	0.37
22TANK0597	Tank 597	VOC	3.44	3.85
22TANK0598	Tank 598	VOC	3.44	3.85
22TANK0599	Tank 599	VOC	0.09	0.24
22TANK902	Tank 902 (7)	VOC	0.21	6.36
22TANK0918	Tank 918	VOC	2.92	5.69
22TANK0919	Tank 919	VOC	2.06	3.48
22TANK0920	Tank 920	VOC	2.05	3.70

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22TANK0938	Tank 938	VOC	2.05	3.51
22TANK0939	Tank 939	VOC	1.95	3.27
22TANKDCP3	Tank DCP3	VOC	0.62	2.73
39SWTANK	Tank DCP SW	VOC	0.01	0.01
22TANK0948	Tank 948 (8)	VOC	0.03	0.89
22TANK0452	Tank 452 (8)	VOC	11.14	(10)
22TANK0453	Tank 453 (8)	VOC	11.13	(10)
22TANK0454	Tank 454 (8)	VOC	11.14	(10)
22TANK0455	Tank 455 (8)	VOC	11.13	(10)
22TANK0475	Tank 475 (8)	VOC	13.19	(10)
22TANK0476	Tank 476 (8)	VOC	13.18	(10)
22TANK0477	Tank 477 (8)	VOC	11.66	(10)
22TANK0478	Tank 478 (8)	VOC	11.66	(10)
22TANK0479	Tank 479 (8)	VOC	11.66	(10)
22TANK0480	Tank 480 (8)	VOC	9.76	(10)
22TANK0481	Tank 481 (8)	VOC	9.87	(10)
22TANK0482	Tank 482 (10)	VOC	9.13	8.91
22CRUDECAP	Crude Cap	VOC		39.42
22TANK0532	Tank 532	VOC	6.66	(11)
22TANK0541	Tank 541	VOC	1.97	(11)
22TANK0542	Tank 542	VOC	2.28	(11)
22TANK0935	Tank 935	VOC	2.06	(11)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

22TANKDCP1	Tank DCP1	VOC	1.23	(11)
22GASCAP	Gasoline Cap	VOC	27.70	
22TANK0525	Tank 525	VOC	0.42	(12)
22TANK0543	Tank 543	VOC	0.17	(12)
22TANK0909	Tank 909	VOC	0.17	(12)
22TANK910	Tank 910	VOC	0.42	(12)
22JETCAP	Jet Cap	VOC	0.72	
22TANK0524	Tank 524	VOC	2.95	(13)
22TANK0917	Tank 917	VOC	2.92	(13)
22TANK0918	Tank 918	VOC	1.19	(13)
22TANK0921	Tank 921 (9)	VOC	0.16	(13)
22TANK0922	Tank 922 (9)	VOC	0.16	(13)
22TANK934	Tank 934	VOC	2.15	(13)
22TANKDCP2	Tank DCP2	VOC	0.12	(13)
22DIESELCAP	Diesel Cap (16)	VOC	19.76	
22DIESELCAP	Diesel Cap (16)	VOC	20.02	
22TANK0558	Tank 558 (7) (8)	VOC	7.20	(14)
22TANK0559	Tank 559 (7) (8)	VOC	7.20	(14)
22TANK0560	Tank 560 (7) (8)	VOC	7.20	(14)
22TANK0561	Tank 561 (7) (8)	VOC	7.20	(14)
22GASOILCAP	Gas Oil Cap	VOC	2.45	

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

22TANK0589	Tank 589 (7)	VOC	0.42	(15)
22TANK0925	Tank 925 (7)	VOC	0.34	(15)
22CBOCAP	Carbon Black Oil Cap	VOC		0.29
30CKRTRKLD	Coke Handling	PM	0.21	0.86
30DCPCT1	DCP Cooling Tower	PM	0.32	1.42
		VOC	0.60	2.65
22OSFTKFUG	Piping Fugitives (4)	VOC	1.28	5.58
45DOCKTO1	Marine Terminal Thermal Oxidizer 1	VOC	5.82	(5)
		NO_x	10.08	(5)
		CO	15.42	(5)
		SO_2	0.14	(5)
45DOCKTO2	Marine Terminal Thermal Oxidizer 2	VOC	11.63	(5)
		NO_x	19.51	(5)
		CO	29.84	(5)
		SO_2	0.16	(5)
45DOCKTOCAP	Marine Terminal Thermal Oxidizers 1 and 2 Cap	VOC		3.40
		NO_x		4.95
		CO		14.67
		SO_2		0.02
45DOCK1LDG	Dock 1 Loading Losses	VOC	29.69	6.56
45DOCK3LDG	Dock 3 Loading Losses	VOC	29.69	(6)
45DOCK1FUG	Dock 1 Equipment Fugitives (4)	VOC	6.87	1.57
45DOCK3FUG	Dock 3 Equipment Fugitives (4)	VOC	6.87	1.57
06VDU2FUGS	VDU-2 Fugitives (4)	VOC	1.50	6.57
		H_2S	0.06	0.27

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

30CKRFUGS	CU Fugitives (4)	VOC	3.60	15.77
43DHT3FUGS	DHT-3 Fugitives (4)	VOC	1.64	7.16
		H_2S	0.05	0.21
		NH_3	0.01	0.01
42FGTFUGS	ARU-2 Fugitives (4)	VOC	0.60	2.61
		H_2S	0.04	0.17
39SWS3FUGS	SWS-3 Fugitives (4)	VOC	0.02	0.07
		H_2S	0.02	0.11
		NH_3	0.02	0.08
34SRU4FUGS	SRU/TGU Fugitives (4)	VOC	0.17	0.74
		H_2S	0.22	0.96
		NH_3	0.12	0.52
22TKDCPFUGS	DCP Fugitives (4)	VOC	0.05	0.20
22TK926FLR	Tank 926 Flare	VOC	0.06	0.24
		NO_x	0.38	1.66
		CO	0.69	2.74
50BZTNKFLR	Benzene Tank Flare	VOC	0.07	0.72
		NO_x	0.58	5.22
		CO	0.56	7.32
30CKRFLARE	DCP Flare	NO_x	0.01	0.01
		CO	0.01	0.04
		SO_2	0.01	0.05
		VOC	0.04	0.14
		H_2S	0.01	0.01

MAINTENANCE, START-UP, AND SHUTDOWN (MSS)

MSS_TA	Process Unit Turnarounds (17)	VOC	147.57	1.98
		CO	269.92	4.60
		NO_x	38.05	0.65
		SO_2	6,890.41	44.86
		H_2S	129.21	0.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

MSS_ATM	Process Unit Turnarounds (17)	VOC	14.81	0.18
		H_2S	5.10	0.06
MSSILE	Process Equipment MSS to ATM	VOC	30.33	4.21
43DHT3CMSS	DHT-3 Heater MSS (18)	CO	3.50	--

(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
CO - carbon monoxide
SO_2 - sulfur dioxide
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.
H_2S - hydrogen sulfide
NH_3 - ammonia
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(5) Annual emission rates shown with 45DOCKTO1/45DOCKTO2 CAPS are the summed emission caps for 455DOCKTO1 and 45DOCKTO2.
(6) Annual emission rates shown with 45DOCK1LDG are the summed emission cap for 45DOCK1LDG and 45DOCK3LDG.
(7) Emission rate listed is not in effect until start-up of the Deep Conversion Project and the source

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

is removed from Permit Number 18936 via permit alteration.

(8) Emission rate listed is not in effect until start-up of the Deep Conversion Project and the source is removed from Permit Number 49743 via permit alteration.

(9) Emission rate listed is not in effect until start-up of the Deep Conversion Project and the source is removed from Permit Number 56409 via permit alteration.

(10) Annual VOC emission rate is included in the Crude Cap (EPN 22CRUDECAP). Upon start-up of the Deep Conversion Project, the annual emission rate listed for Tank 482 (EPN 22TANK0482) may be removed as it is part of the overall Crude Cap.

(11) Annual VOC emission rate is included in the Gasoline Cap (EPN 22GASCAP)

(12) Annual VOC emission rate is included in the Jet Cap (EPN 22JETCAP)

(13) Annual VOC emission rate is included in the Diesel Cap (EPN 22DIESELCAP)

(14) Annual VOC emission rate is included in the Gas Oil Cap (EPN 22GASOILCAP)

(15) Annual VOC emission rate is included in the Carbon Black Oil Cap (EPN 22CRUDECAP)

(16) Annual VOC emissions from tanks included in the Diesel Cap (22DIESELCAP) may not exceed 19.76 tons per year (tpy) until Tank 921 (EPN 22TANK0921) and Tank 922 (EPN 22TANK0922) are removed from Permit Number 56409. Upon completion of this act, annual VOC emissions from tanks in the Diesel Cap may not exceed 20.02 tpy.

(17) Emissions subject to these limits are identified in Special Condition No. 46 and Attachments B and C.

(18) Hourly CO emissions from the DHT-3 Charge Heater during periods of MSS (EPN 43DHT3CMSS) are only authorized per Special Condition No. 49. Annual MSS emissions are covered by the annual emission limit for normal operations (EPN 43DHTCHTR).

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:
8,760 Hrs/year

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

Dated October 14, 2008