EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 76192

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**
FULSG001	Fugitive Piping (4)	VOC	2.9	13.5
HTLSG001	Heater H-3701	VOC	0.3	0.7
		NO_x	1.0	2.1
		SO_2	1.4	3.1
		PM_{10}	0.3	0.7
		CO	0.9	1.8
TKTKF827	Tank 827	VOC	7.5	13.0
VTLSG001	Regenerator Scrubber Vent	VOC	0.5	2.2
		SO_2	2.0	8.8
		SO_3	0.1	0.6
		H_2SO_4	0.5	2.0
		PM_{10}	0.8	3.4
		CO	2.6	11.5
VTLSG002	Lockhopper Vent, Sorbent Storage Drum Loading, Sorbent Fines Drum Loading	PM_{10}	0.2	0.7
VTLSG003	Sorbent Fines Drum Unloading	PM_{10}	0.01	0.01
Ultra Low Sulfur Diesel Unit				
INSRU002	No. 2 Sulfur Plant Tail Gas Incinerator	VOC	0.10	0.41
		NO_x	1.36	5.96
		CO	6.16	26.98
		SO_2	35.20	149.76
		$PM_{10}/PM_{2.5}$	0.13	0.56
		H_2S	0.02	0.08

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
HTLSD001	ULSD Feed Heater (95 MMBtu/hr)	VOC	0.52	2.25
		CO	3.46	15.15
		SO_2	3.00	4.87
		$PM_{10}/PM_{2.5}$	0.72	3.13
		NH_3	0.42	1.84
		H_2S	0.02	0.03
	Typical operation with SCR	NO_x	0.95	—
	SSM operation/SCR bypass	NO_x	3.80	—
	Total Annual NO_x		—	4.41
HTLSD002	ULSD Reboiler Heater (39 MMBtu/hr)	VOC	0.22	0.93
		NO_x	0.98	4.28
		CO	1.42	6.22
		SO_2	1.23	2.00
		$PM_{10}/PM_{2.5}$	0.30	1.29
		H_2S	0.01	0.02
FUCTLSD	ULSD Cooling Water Tower	VOC	1.89	8.28
		PM	0.57	0.99
		PM_{10}	0.31	0.81
		$PM_{2.5}$	0.12	0.30
FULSD001	ULSD Unit Fugitives	VOC	2.56	11.21
		NH_3	0.03	0.13
		H_2S	0.14	0.60
FULSD002	ULSD Fugitives Outside Battery Limits	VOC	0.70	3.05
		H_2S	<0.01	<0.01
FULSDFDR	No. 3 Flare Header Fugitives	VOC	0.19	0.81
FUSRUA002	Amine Regeneration System Fugitives	VOC	0.37	1.63
		NH_3	0.01	0.05

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
		H_2S	0.08	0.34
FUSRUS002	Sour Water Stripping System Fugitives	VOC	0.01	0.03
		NH_3	0.01	0.05
		H_2S	0.02	0.10
FUSRU002	No. 2 Sulfur Plant Fugitives	VOC	0.39	1.71
		NH_3	0.06	0.27
		H_2S	0.17	0.76
FLRFN003	No. 3 Flare	VOC	1.72	7.53
		NO_x	0.25	1.10
		CO	1.76	7.71
		SO_2	0.15	0.24
		H_2S	0.01	0.01
TKTKFSW1	Sour Water Tank No. 1	VOC	1.72	—
		H_2S	0.17	—
TKTKFSW2	Sour Water Tank No. 2	VOC	1.72	—
		H_2S	0.17	—
TKTKFSW1 and TKTKFSW2	Total Sour Water Tanks Nos. 1 and 2	VOC	—	0.51
		H_2S	—	0.05
TKTKFDS1	Diesel Storage Tank No. 1	VOC	20.72	—
TKTKFDS2	Diesel Storage Tank No. 2	VOC	20.72	—
TKTKFDS3	Diesel Storage Tank No. 3	VOC	20.72	—

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
TKTKFDS1, TKTKFDS2 and TKTKFDS3	Total Diesel Storage Tank Nos. 1, 2 and 3	VOC	—	14.90

(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
SO_2 - sulfur dioxide
SO_3 - sulfur trioxide
H_2SO_4 - sulfuric acid
PM - particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter (PM) 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
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 - ammonia
H_2S - hydrogen sulfide
(4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.

* Emission rates are based on continuous operation.

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

Dated August 20, 2010