Emission Sources, Emission Caps, and Individual Emission Limitations

Flexible Permit Numbers 6308 and PSDTX137M2

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
Emission Rate Caps				
		NO_x	360.18	208.47
		CO	266.57	401.22
		SO_2	247.33	288.90
		H_2S	6.11	13.01
		Ozone	15.51	27.48
		PM	46.87	169.51
		PM_{10}	46.53	168.01
		$PM_{2.5}$	46.26	166.81
		VOC	316.12	441.23
		Toluene	0.98	2.16
		Xylene	0.97	1.27
		Benzene	0.60	0.44
		NH_3	3.49	11.47
		HCN	17.50	63.90
		$NaHSO_3$	0.72	0.31
		SAM	13.88	49.95

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Maintenance, Startup, and Shutdown (MSS) Emission Caps (6)				
		VOC	1050.56	26.08
		NOx	321.29	15.49
		CO	1,820.15	25.84
		SO_2	1363.23	30.25
		H_2S	4.12	0.28
		PM	17.43	0.83
		PM_{10}	13.81	0.32
		$PM_{2.5}$	13.81	0.32
		HCl	0.58	0.03
		SAM	2.77	0.06
Individual Emission Rate Limits				
35,36	BTX Rx No. 1 Heater	NOx	4.95	21.70
		CO	5.50	24.10
		SO_2	3.53	4.63
		PM	0.82	3.61
		PM_{10}	0.82	3.61
		$PM_{2.5}$	0.82	3.61
		VOC	0.60	2.61
		SAM	0.04	0.05
37,38	BTX RX No. 2 Heater	NOx	5.40	23.70
		CO	6.00	26.30
		SO_2	3.85	5.06
		PM	0.90	3.93
		PM_{10}	0.90	3.93
		$PM_{2.5}$	0.90	3.93
		VOC	0.65	2.84
		SAM	0.04	0.06
33,34	BTX Deptentanizer Reboiler	NOx	2.48	10.80
		CO	2.75	12.00
		SO_2	1.76	2.32
		PM	0.41	1.80
		PM_{10}	0.41	1.80
		$PM_{2.5}$	0.41	1.80
		VOC	0.30	1.30
		SAM	0.02	0.03
120	Isom Splitter Reboiler	NOx	1.60	7.01
		CO	3.28	14.40
		SO_2	1.28	1.69
		PM	0.30	1.30

		PM_{10}	0.30	1.30
		$PM_{2.5}$	0.30	1.30
		VOC	0.22	0.94
		SAM	0.01	0.02
F-121	Isom Fugitives (5)	VOC	2.63	11.52
F-58	Butadiene Saturation Fugitives (5)	VOC	1.05	4.60
F-123	MTBE Fugitives (5)	VOC	2.42	10.60
80	DHT-I Charge Heater	NO_x	2.16	9.46
		CO	2.97	12.99
		SO_2	1.15	3.04
		PM	0.27	1.17
		PM_{10}	0.27	1.17
		$PM_{2.5}$	0.27	1.17
		VOC	0.19	0.85
		SAM	0.01	0.03
81	DHT-I Frac. Heater	NO_x	1.00	4.38
		CO	1.65	7.22
		SO_2	0.64	1.69
		PM	0.15	0.65
		PM_{10}	0.15	0.65
		$PM_{2.5}$	0.15	0.65
		VOC	0.11	0.47
		SAM	0.01	0.02
74R	DHT-K Charge Heater	NO_x	2.79	12.22
		CO	5.11	22.38
		SO_2	1.99	0.23
		PM	0.46	2.02
		PM_{10}	0.46	2.02
		$PM_{2.5}$	0.46	2.02
		VOC	0.33	1.46
		SAM	0.02	0.06
77	DHT-D Charge Heater	NO_x	3.14	13.70
		CO	2.63	11.50
		SO_2	1.03	1.35
		PM	0.24	1.04
		PM_{10}	0.24	1.04
		$PM_{2.5}$	0.24	1.04
		VOC	0.17	0.76
		SAM	0.01	0.02

(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 Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
CO - carbon monoxide
Cl_2 - chlorine
H_2S - hydrogen sulfide
HCl - hydrogen chloride
NH_3 - ammonia
HCN - hydrogen cyanide
SAM - Sulfuric Acid Mist

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) MSS activities and emission points are identified in Attachment C.

Date: March 11, 2024

Emission Sources Summary Table for Sources Contributing to Emissions Caps

Emission Point Number	Facility Identification Number	Description	CO	NOx	PM PM_{10} $PM_{2.5}$	SO_2	VOC	Toluene	Xylene	Benzene	H_2S	O_3	NH_3	HCN	$NaHSO_3$	SAM
67,68	E23H301B	DIH B Heater	X	X	X	X	X									X
110	E0310F101	FCCU II Charge Heater	X	X	X	X	X									X
65A	E23H101A	Crude II Charge Heater A	X	X	X	X	X									X
101,102	E28H101	Hydrobon Charge Heater	X	X	X	X	X									X
99,100	E28H102	Hydrobon Reboiler	X	X	X	X	X									X
25	E20H1	Sulfolane Heater	X	X	X	X	X									X
E29H417	E29H417	SRU No. 1 Heater	X	X	X	X	X									X
95	E10B10	East Boiler No. A	X	X	X	X	X									X
FL-125/TEMPCARB	E14TK531	WWTP TO	X	X	X	X	X									X
111	FG SCRUB	FCCU II Scrubber	X	X	X	X	X					X	X	X		
S-84	E29F511	SRU No. 1 TGI	X	X	X	X	X				X					X
S-85	E46H300	SRU No. 2 TGI	X	X	X	X	X				X					X
FL-97	E01FL100	Main Flare	X	X		X	X				X					
FL-28	E01FL101	West Flare	X	X		X	X				X					
FL-118	E12FL101	Marine VCU	X	X	X	X	X				X					
C-107	SULFOLANEC	Sulfolane Cooling Tower			X		X				X					
C-108	BTX PLA C	BTX Cooling Tower			X		X				X					
C-109	CR 2 COOL	Crude II Cooling Tower			X		X				X					
C-110	HBON COOL	Hydrobon Cooling Tower			X		X				X					
C-113	FCC 2 COOL	FCCU II Cooling Tower			X		X				X					
F-112	F-112	FCCU II Fugitives					X				X					
F-53	F-53	Sulfolane Fugitives					X				X					
F-30	F-30	Terminal 3					X				X					

Emission Sources Summary Table for Sources Contributing to Emissions Caps

		Fugitives														
F-61	F-61	Crude II/DIH Fugitives					X				X					
F-98	F-98	Hydrobon Fugitives					X				X					
F-55	F-55	BTX Platformer Fugitives					X				X					
F-26	F-26	Terminal 2 Fugitives					X				X					
90,91,92P	SHIP&BARGE	Marine Dock Component Fugitives					X				X					
F-118	F-118	MVCU Equipment Fugitives					X				X					
F-79	F-79	DHT-I Fugitives					X				X					
F-72	F-72	DHT-K Fugitives					X				X					
F-76	F-76	DHT-D Fugitives					X				X					
F-WWTP	F-WWTP	WWTP Fugitives					X				X					
F-FGS	P-FGS	Fuel Gas Supply System Fugitives					X				X					
F-86	TRUCK RACK	Truck Rack Fugitives					X				X					
F-97	F-97	Flare System Fugitives					X									
F-SRU1	SULFUR REC	SRU No. 1 Fugitives					X				X					
F-SRU2	SULFUR REC	SRU No. 2 Fugitives					X				X					
F-BLRSCR	F-BLRSCR	Boiler SCR Ammonia Fugitives											X			
E04V16	E04V16	Tank E04V16					X									
E11TK323/PORTTO	E11TK323/PORTTO	Tank E11TK323					X				X					
E11TK325	E11TK325	Tank E11TK325					X				X					
E11TK329	E11TK329	Tank E11TK329					X				X					

Emission Sources Summary Table for Sources Contributing to Emissions Caps

E11TK330	E11TK330	Tank E11TK330					X									
E11TK331	E11TK331	Tank E11TK331					X				X					
E11TKR40	E11TKR40	Tank E11TKR40					X				X					
E11TKS21	E11TKS21	Tank E11TKS21					X	X	X		X					
E11TKS23	E11TKS23	Tank E11TKS23					X	X	X		X					
E11TKS30	E11TKS30	Tank E11TKS30					X				X					
E11TKS31	E11TKS31	Tank E11TKS31					X				X					
E11TKS32	E11TKS32	Tank E11TKS32					X	X	X		X					
E11TKS41	E11TKS41	Tank E11TKS41					X				X					
E11TKS42	E11TKS42	Tank E11TKS42					X				X					
E11TKS43	E11TKS43	Tank E11TKS43					X				X					
E11TKS6	E11TKS6	Tank E11TKS6					X				X					
E11TKS7	E11TKS7	Tank E11TKS7					X				X					
E11TKS8	E11TKS8	Tank E11TKS8					X				X					
E12TK116	E12TK116	Tank E12TK116					X				X					
E12TK117	E12TK117	Tank E12TK117					X				X					
E12TK145	E12TK145	Tank E12TK145					X			X	X					
E12TK146	E12TK146	Tank E12TK146					X			X	X					
E14TK526	E14TK526	Tank E14TK526					X				X					
E14TK528	E14TK528	Tank E14TK528					X				X					
E14TK530	E14TK530	Tank E14TK530					X				X					
E14TK530CC	E14TK530CC	E14TK530 Overflow Pipe					X				X					
E18TK110	E18TK110	Tank E18TK110					X				X					
E18TK111	E18TK111	Tank					X				X					

Emission Sources Summary Table for Sources Contributing to Emissions Caps

		E18TK111														
E18TK112	E18TK112	Tank E18TK112					X				X					
E18TKCS3	E18TKCS3	Tank E18TKCS3					X				X					
E20V21A	E20V21A	Tank E20V21A					X									
E20V22	E20V22	Tank E20V22					X									
E20V4	E20V4	Tank E20V4					X									
E29T511R	E29T511R	Tank E29T511R					X				X					
PERMSCAV	PERMSCAV	FCCU II H2S Scavenger Tote					X									
H2SCAV	H2SCAV	WWTP H2S Scavenger Tote					X									
TkNaHSO3	TkNaHSO3	Sodium Bisulfite Tank													X	
E340SCT246	E340SCT246	Anodamine Tote					X									
E10SCT248	E10SCT248	Anodamine Tote					X									
E0320D128	E0320D128	Spent Caustic Tank					X									
E23SCT250	E23SCT250	Anodamine Tote					X									
E13TK39	E13TK39	Diesel Tank for E13TK39					X									
E13TK40	E13TK40	Diesel Tank for E13TK40					X									
E13TK41	E13TK41	Diesel Tank for E13TK41					X									
E13P45	E13P45	Firewater Diesel Engine E13P45	X	X	X	X	X									
E13P46	E13P46	Firewater Diesel Engine E13P46	X	X	X	X	X									
E13P47	E13P47	Firewater Diesel Engine	X	X	X	X	X									

Emission Sources Summary Table for Sources Contributing to Emissions Caps

		E13P47														
LOADFUG	MARINE	Uncontrolled Marine Loading					X				X					
PROPFRZTST	PROPFRZTST	Propane Freeze Tests					X									
E14TK503A	E14TK503A	Aeration Basin No. 1					X									
E14TK503B	E14TK503B	Aeration Basin No. 2					X									