

Emission Sources - Maximum Allowable Emission Rates

Flexible Permit Numbers 1176 and PSDTX782

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 (5)
ST-456	Tank F-1115	VOC	0.42	2.34
FU-201 (10)	PX-1 Fugitives (4)	VOC	4.85	21.23
		Benzene	0.05	0.24
Non-Maintenance, Startup, and Shutdown (MSS) Emission Caps		CO	86.01	388.54
		NO _x	39.00	158.54
		PM ₁₀	9.06	39.68
		SO ₂	0.51	2.23
		VOC	240.86	232.06
		Benzene	19.62	29.47
		Styrene	19.85	31.56
		Sulfuric acid	0.001	0.001
		Hydrogen Chloride	0.50	2.10
MSS Emission Caps – Controlled (8)		CO	601.77	10.57
		NO _x	110.03	2.07
		SO ₂	0.25	0.01
		VOC	1125.80	6.35
		Benzene	177.19	2.69
		Styrene	1.16	0.01
MSS Emission Caps – Uncontrolled (9)		VOC	181.06	15.67
		Benzene	1.52	0.01
		Styrene	1.50	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Sources - Maximum Allowable Emission Rates

This table identifies the emission points and sources that emit air contaminants and the species they may emit. The total emissions from these facilities shall not exceed the non-MSS emission caps provided on the previous page.

Emission Point No. (1)	Source Name (2)	CO	NO _x	PM ₁₀	SO ₂	VOC	Benzene	Styrene
HF-201	PX-1 ISOM Heater H-101	x	x	x	x	x		
HF-203	PX-1 Reboilers H-103/104	x	x	x	x	x		
HF-451	PX-2 ISOM Heater H-1101	x	x	x	x	x		
HF-453	PX-2 H-Reboilers 1103/1104	x	x	x	x	x		
HF-204	PX-1 LAF/TDP Furnace H-501	x	x	x	x	x		
HF-601	MX-2 Heater H-102	x	x	x	x	x		
HF-602	MX-2 Heater H-201	x	x	x	x	x		
FL-201	PX-1 Flare (1)	x	x		x	x	x	
FL-401 FL-351	PX-2 Flare and POLYB Flare (6)	x	x		x	x	x	
CT-451	PX-2 Cooling Tower			x		x		
CT-351	PX-1, PX-3, MX2, PCU, Utilities Cooling Tower			x		x		
FS-201	PX-1 Separator					x		
S-451	PX-2 Separator					x		
SP-50 SP-51 SP-52	Loading – Recovery Docks 50, 51, and 52					x		x
SP-54	HAB Truck Loading 54 (7)							
SP-201	PX-1 Truck Loading					x		
FU-451	PX-2 Fugitives (3)					x	x	
FU-551	PX-3 Fugitives (3)					x	x	
FU-152	Dock Fugitives (3)					x		x
ST-201	PX-1 Tank TF-111					x	x	
ST-202	PX-1 Tank TF-112					x	x	
ST-203	PX-1 Tank TF-113					x	x	
ST-204	PX-1 Tank TF-114					x	x	
ST-205	PX-1 Tank TF-115					x	x	
ST-206	PX-1 Tank TF-117					x	x	
ST-207	PX-1 Tank TF-118					x	x	
ST-208	PX-1 Tank TF-120					x	x	
ST-209	PX-1 Tank TF-121					x	x	
ST-210	PX-1 Tank TF-116					x	x	
ST-451	PX-2 Tank TF-1117					x	x	
ST-452	PX-2 Tank TF-1111					x	x	
ST-453	PX-2 Tank TF-1112					x	x	
ST-454	PX-2 Tank TF-1113					x	x	
ST-455	PX-2 Tank TF-1114					x	x	
ST-457	PX-2 Tank TF-1118					x	x	
ST-2113	PX-3 Tank TF-2113					x	x	
ST-2118	PX-3 Tank TF-2118					x	x	

Emission Sources - Maximum Allowable Emission Rates

ST-151	Dock Tank TK-201					X	X	
ST-152	Dock Tank TK-202					X	X	
ST-153	Dock Tank TK-203					X	X	
ST-154	Dock Tank TK-204					X	X	
ST-155	Dock Tank TK-205					X	X	
ST-156	Dock Tank TK-206					X	X	X
ST-157	Dock Tank TK-207					X	X	
ST-159	Dock Tank TK-208					X	X	
ST-161	Dock Tank TK-401					X	X	
ST-162	Dock Tank TK-402					X	X	

- (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_{10} - total particulate matter equal to or less than 10 microns in diameter, suspended in the atmosphere, including $\text{PM}_{2.5}$, as represented
 $\text{PM}_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
 CO - carbon monoxide
- (4) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (6) Hydrogen Chloride may also be emitted from this EPN.
- (7) Sulfuric acid is emitted from this EPN.
- (8) Activities, control devices, and EPNs identified in Permit Attachment C.
- (9) Emissions occur at EPN MSSATM and activities identified in Permit Attachment C.
- (10) The authorized VOC emissions have been used in the issuance of Emission Reduction Credits and cannot be increased during the service life of the remaining facilities of the Paraxylene Unit No. 1.

Date: May 10, 2018