

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Flexible Permit Number 49823

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.

EMISSION CAPS

<u>Emission Caps Air Contaminants</u>	<u>lb/hr</u>	<u>TPY *</u>
VOC Final Source Cap***	498.80	591.89
Ethylene Final Source Cap	418.25	223.86
Propylene Final Source Cap	173.98	1.25
NO _x Final Source Cap	121.86	121.66
CO Final Source Cap	444.23	271.58
PM ₁₀ Final Source Cap	8.27	16.05
SO ₂ Final Source Cap	3.98	4.95

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
PE-RTO	Thermal Oxidizer	VOC	0.54	2.34
		NO _x	0.70	3.07
		CO	0.52	2.27
		PM ₁₀	0.09	0.41
		SO ₂	0.09	0.08
Flares and Vents (4)		VOC		123.61
		Ethylene		64.48
		Propylene		1.25
MSSCAP2	Flexible Cap for Sitewide maintenance, startup, and shutdown (MSS) Activities (5)	VOC	56.01	1.30
		NO _x	1.60	0.06
		CO	8.27	0.33
		SO ₂	0.03	0.01
PE- FLAREMSS	Polyethylene Flare MSS Emissions (6)	VOC	498.80	15.99
		NO _x	29.17	0.32
		CO	150.25	0.65
		SO ₂	7.13	0.08
VCONT	MSS Emissions from Temporary Flares and Vapor Combustors (7)	VOC	23.51	0.87
		NO _x	1.61	0.06
		CO	8.27	0.33
		SO ₂	0.03	0.01

- (1) Emission point identification - either specific equipment designation or emission point number (EPN) 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
 SO₂ - sulfur dioxide
 PM₁₀ - particulate matter equal to or less than 10 microns in diameter
 CO - carbon monoxide
- (4) The VOC, ethylene, and propylene annual emissions for the following flare and vent EPNs also contribute to the annual limits on VOC source cap, ethylene source cap, and propylene source cap, respectively: PE-Flare, PE-CM7DRY, PE-CM7STG, PE-CM8VNT, PE-CM8DRY, PE-CM8STG, PE-CM10FV, PE-CM10DRY, PE-CM10STG, PE-FCM1DRY, PE-FCM1STG, PE-

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FCM2DRY, PE-FCM2STG, PE-FCM2DRY, PE-FCM3STG, PE-FCM6DRY, PE-FCM6FV, and PE-FCM6STG.

- (5) The EPN MSSCAP2 is a site-wide cap for emissions from planned MSS activities (except emissions from PE-FLAREMSS and is not included in site-wide emissions cap.
- (6) Emissions rates for PE-FLAREMSS represent emissions from planned MSS activities that are routed to the plant flare (EPN PE-FLARE) and are included in the site-wide caps for VOC, NO_x, CO, and SO₂.
- (7) The MSS VOC emissions from temporary flares and vapor combustors are included in EPN MSSCAP2. MSS NO_x, CO, and SO₂ emissions from temporary flares and vapor combustors are represented in EPN VCONT and are not included in EPN MSSCAP2.

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

___Hrs/day ___Days/week ___Weeks/year or 8,760 Hrs/year

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

*** VOC includes all speciated volatiles as shown.

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Source Caps include the following Emission Point Numbers:

VOC

PE Finishing	PE Finishing	Cogen Units	PE Cooling Towers	PE Flares	PE Fugitives
PE-CM7DRY	PE-FCM2STG	PE-HRSG21	PE-CT1	PE-FLARE	PE-A50
PE-CM7STG	PE-FCM3DRY	PE-HRSG22	PE-CT2A	VCONT	PE-AR702
PE-CM8VNT	PE-FCM3STG	PE-HRSG23	PE-CT2B		PE-A130A
PE-CM8DRY	PE-FCM6FV	PE-HRSG24	PE-CT3		PE-A130B
PE-CM8CARB	PE-FCM6DRY				PE-A130C
PE-CM10FV	PE-FCM6STG				PE-A150
PE-CM10DRY	PE-LOAD				PE-A160
PE-CM10STG					PE-AMTRYD
PE-FCM1DRY					PE-ERU
PE-FCM1STG					PE-CVS
PE-FCM2DRY					PE-A410
PE-CM8STG					MSSFUG1

PM

PE Finishing	PE Finishing	Cogen Units	PE Cooling Towers	PE Flares	PE Fugitives
PE-CM7STG		PE-HRSG21			
PE-CM8VNT		PE-HRSG22			
PE-CM8CARB		PE-HRSG23			
PE-CM10FV		PE-HRSG24			
PE-CM10STG					
PE-FCM1STG					
PE-FCM2STG					
PE-FCM3STG					
PE-FCM6STG					
PE-LOAD					

NO_x, CO, and SO₂

PE Finishing	PE Finishing	Cogen Units	PE Cooling Towers	PE Flares	PE Fugitives
		PE-HRSG21		PE-FLARE	
		PE-HRSG22		VCONT	
		PE-HRSG23			
		PE-HRSG24			

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