

Emission Sources - Maximum Allowable Emission Rates

Flexible Permit Numbers 21262 and PSDTX928

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)
ROUTCAP	Routine Emissions Cap	CO	659.90	2333.44
		NO _x	358.16	1251.82
		PM	51.79	190.35
		PM ₁₀	51.79	190.35
		PM _{2.5}	51.79	190.35
		SO ₂	1770.47	4806.63
		VOC	1539.41	2091.21
		Benzene	8.09	13.87
		H ₂ S	6.89	19.93
		Ammonia	4.99	21.18
MSSCAP	MSS Emissions Cap	CO	189.01	5.94
		NO _x	14.77	0.70
		PM	19.25	12.40
		PM ₁₀	19.25	12.40
		PM _{2.5}	19.25	12.40
		SO ₂	1560.81	46.07
		VOC	2589.87	64.20
		Benzene	19.80	0.11
		H ₂ S	59.86	2.21

Emission Sources - Maximum Allowable Emission Rates

H600	FCCU CO Boiler	CO	346.20	1381.92
		NO _x	56.88	124.56
		PM	66.00	289.08
		PM ₁₀	66.00	289.08
		PM _{2.5}	66.00	289.08
		SO ₂	593.48	216.62
		VOC	3.20	14.02
		Ammonia	5.25	23.02
H613	DU-1 Secondary Pre-Heater	CO	Hourly emissions within ROUTCAP	58.43
		NO _x		21.69
		PM		5.29
		PM ₁₀		5.29
		PM _{2.5}		5.29
		SO ₂		7.62
		VOC		3.83

- (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
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - H₂S - hydrogen sulfide
- (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.

Date: January 8, 2021

Flexible Permit Numbers 21262 and PSDTX928

MAERT Attachment
EPNs Included within Caps

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 pages.

Emission Point No. (1)	Source Name (2)	CO	NO _x	PM PM ₁₀ PM _{2.5}	SO ₂	VOC	Ben- zene	H ₂ S	NH ₃
A305R1	Storage Tank A305R1					X	X	X	
A307R1	Storage Tank A307R1					X	X	X	
A308R1	Storage Tank A308R1					X	X	X	
A309R1	Storage Tank A309R1					X	X	X	
A310	Storage Tank A310					X	X	X	
A312R1	Storage Tank A312R1					X	X	X	
A313	Storage Tank A313					X	X	X	
A315	Storage Tank A315					X	X	X	
A316R1	Storage Tank A316R1					X	X	X	
A317	Storage Tank A317					X	X	X	
A319R1	Storage Tank A319R1					X	X	X	
A320R1	Storage Tank A320R1					X	X	X	
A321	Storage Tank A321					X	X	X	
A322	Storage Tank A322					X	X	X	
A324	Storage Tank A324					X	X	X	
A325	Storage Tank A325					X	X	X	
A326	Storage Tank A326					X	X	X	
A327	Storage Tank A327					X	X	X	
A328	Storage Tank A328					X	X	X	
A329	Storage Tank A329					X	X	X	
A330	Storage Tank A330					X	X	X	
A331	Storage Tank A331					X	X	X	
A332	Storage Tank A332					X	X	X	
A333	Storage Tank A333					X	X	X	
A334	Storage Tank A334					X	X	X	
AE2340	Octane Testing Engine	X	X	X	X	X			
AE2636	Octane Testing Engine	X	X	X	X	X			
AE2650	Octane Testing Engine	X	X	X	X	X			
AE348	On-line Knock Engine	X	X	X	X	X			
AE349	On-line Knock Engine	X	X	X	X	X			
AE388	On-line Knock Engine	X	X	X	X	X			
AE389	On-line Knock Engine	X	X	X	X	X			
AE700	Octane Testing Engine	X	X	X	X	X			
AE768	Octane Testing Engine	X	X	X	X	X			
AP1R1	Storage Tank AP1R1					X	X	X	
AP16	AP16 Storage Tank					X	X	X	
AP17	AP17 Storage Tank					X	X	X	
AP2R1	Storage Tank AP2R1					X	X	X	

MAERT Attachment
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AP20	Storage Tank AP20					X	X	X	
AP21	Storage Tank AP21					X	X	X	
AP6	AP6 Storage Tank					X	X	X	
AP7R1	Storage Tank AP7R1					X	X	X	
AP8	AP8 Storage Tank					X	X	X	
CCLP	WW - Cat Cracker Lube Plant					X	X	X	X
CWT10	Cooling Tower No. 10			X		X			
CWT11	Cooling Tower No. 11			X		X			
CWT12	Cooling Tower No. 12			X		X			
CWT14	Cooling Tower No. 14			X		X			
CWT15	Cooling Tower No. 15			X		X			
CWT16/16A	Cooling Tower No. 16/16A			X		X			
CWT17	Cooling Tower No. 17			X		X			
CWT6	Cooling Tower No. 6			X		X			
CWT7	Cooling Tower No. 7			X		X			
CWT8	Cooling Tower No. 8			X		X			
CWT9	Cooling Tower No. 9			X		X			
D363	FTXNK2/ANTIICANT Storage Tank					X			
DD2	WW - Dispatching Distilling 2					X	X	X	X
DNF	DNF Float Tank					X	X	X	X
DOCKS	Dock Wastewater Collection					X	X		X
F326	F326 Storage Tank					X	X	X	
F329	Storage Tank F329					X	X	X	
F348	Storage Tank F348					X	X	X	
F349	Storage Tank F349					X	X		X
F351	Storage Tank F351					X	X		X
F364	F364 Storage Tank					X	X	X	
F365	F365 Storage Tank					X	X	X	
F366	F366 Storage Tank					X			
F367	F367 Storage Tank					X			
FLARECCU	CCU Flare	X	X		X	X		X	
FLARECOK E	Coker Flare	X	X		X	X		X	
FLAREEP	East Property Flare	X	X		X	X		X	
FLAREGIRB	EP (Girbitol) Flare	X	X		X	X		X	
FLAREN	North Property Flare	X	X		X	X		X	
FLARESOU TH	South Property Flare	X	X		X	X		X	
FLAREWP	West Property Flare	X	X		X	X		X	
FUGALKY	Alky Fugitives (5)					X	X		
FUGCCU	FCCU Fugitives (5)					X	X	X	X
FUGCFH	CFH Fugitives (5)					X	X	X	X
FUGCGHT	CGHT Fugitives (5)					X	X		

MAERT Attachment
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FUGCOKEP IT	Decoking from Drums (5)			x					
FUGCOKEP M1	Coke Pile Wind Erosion Fugitives (5)			x					
FUGCOKEP M1A	Coke Pile 2 Wind Erosion Fugitives (5)			x					
FUGCOKEP M2	Coke Pile Crane Fugitives (5)			x					
FUGCOKEP M3	Coke Crusher Fugitives (5)			x					
FUGCOKEP M4	Coke Crusher Discharge Fugitives (5)			x					
FUGCOKEP M5	Coke Transfer Conveyor Fugitives (5)			x					
FUGCOKER	Coke Handling Fugitives (5)					x	x	x	x
FUGCPU	CPU Fugitives (5)					x	x		
FUGCR3	CR3 Fugitives (5)					x	x		
FUGDHT	DHT Fugitives (5)					x	x	x	
FUGDISP	DISP Fugitives (5)					x	x	x	X
FUGDOCK	Dock Fugitives (5)					x	x		
FUGDU1	DU1 Fugitives (5)					x	x	x	
FUGDU2	DU2 Fugitives (5)					x	x	x	X
FUGENVN	Environmental North Fugitives (5)					x	x		
FUGEPFGR	EPFRG Fugitives (5)					x		x	
FUGGFRAC	GFRAC Fugitives (5)					x	x	x	x
FUGGIRBIT	Girbitol Fugitives (5)					x		x	
FUGGOHT	GOHT Fugitives (5)					x	x	x	x
FUGHDU1	HDU1 Fugitives (5)					x	x	x	
FUGHNS	HNS Fugitives (5)					x	x		
FUGPLAT2	PLAT2 Fugitives (5)					x	x		
FUGPSA	PSA Fugitives (5)					x	x	x	
FUGSGP	SGP Fugitives (5)					x	x	X	
FUGSHCU	SHCU Fugitives (5)					x	x	X	
FUGSR3/4	SR3/4 Fugitives (5)					x			
FUGSR5	SR5 Fugitives (5)					x	x		
FUGSR6/7	SR6/7 Fugitives (5)					x	X		
FUGSR8	SR8 Fugitives (5)					x			
FUGTHCR	Thermal Cracking Fugitives (5)					x			
FUGWBT	West Blend Tank Fugitives (5)					x			
G313	G313 Storage Tank					x	x	x	
G314R1	Storage Tank G314R1					x	x		
G315	G315 Storage Tank					x	x	x	
G316	G316 Storage Tank					x			
G317R1	Storage Tank G317R1					x	x		
G319	G319 Storage Tank					x	x		
G320	G320 Storage Tank					x	x	x	

MAERT Attachment
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G322	G322 Storage Tank					X	X		
G324R1	Storage Tank G324R1					X	X	X	
G332	G332 Storage Tank					X	X	X	
G345	G345 Storage Tank					X	X		
G346	G346 Storage Tank					X	X		
G347	G347 Storage Tank					X	X		
G348	G348 Storage Tank					X	X	X	
G352	G352 Storage Tank					X	X		
G355	G355 Storage Tank					X	X	X	
G356	G356 Storage Tank					X	X		
G357	G357 Storage Tank					X	X	X	
G358	G358 Storage Tank					X	X	X	
G359	G359 Storage Tank					X	X		
G360	G360 Storage Tank					X	X	X	
G361	G361 Storage Tank					X	X		
G362	Storage Tank G362					X	X	X	
G363	Storage Tank G363					X	X	X	
G364	Storage Tank G364					X	X	X	
G365	Storage Tank G365					X	X	X	
G366	Storage Tank G366					X	X	X	
G367	Storage Tank G367					X	X		
H1000	PLAT2 Heater	X	X	X	X	X			
H1001	PLAT2 Sulfur Guard Bed Start-up Heater	X	X	X	X	X			
H1010	HDU-1 Charge Heater	X	X	X	X	X			
H1011	HDU-1 Reboiler Heater	X	X	X	X	X			
H1100	DHT Heater	X	X	X	X	X			
H1170	CFH Charge Heater	X	X	X	X	X			
H31001/2	Coker Heaters No. 1 and 2	X	X	X	X	X			
H31003	Coker Heater No. 3	X	X	X	X	X			
H3300	DHT H ₂ Heater	X	X	X	X	X			
H343	Storage Tank H343					X	X	X	
H36100	CGHT Heater	X	X	X	X	X			
H5100	DU-2 South Crude Heater	X	X	X	X	X			
H5101	DU-2 North Crude Heater	X	X	X	X	X			
H5102	DU-2 South Flasher Charge Heater	X	X	X	X	X			
H5103	DU-2 North Flasher Charge Heater	X	X	X	X	X			
H5104	DU-2 Preflash Heater	X	X	X	X	X			
H5105	DU-2 Preflash2 Heater	X	X	X	X	X			
H5200	HDU-2 Charge Heater	X	X	X	X	X			
H53NN	Catalytic Reformer SCR	X	X	X	X	X			X
H5400	SHCU South Charge Heater	X	X	X	X	X			
H5402	SHCU Reboiler Heater	X	X	X	X	X			

MAERT Attachment
EPNs Included Within Caps

H5403	SHCU North Charge Heater	x	x	x	x	x			
H5404	SHCU Post-Frac Heater	x	x	x	x	x			
H5600	SGP Heat Medium Heater	x	x	x	x	x			
H613	DU-1 Secondary Pre-Heater	x	x	x	x	x			
H63000	HVI Column Charge Heater	x	x	x	x	x			
H70001/2	GOHT Recycle Gas and Frac. Reboiler Heaters	x	x	x	x	x			
J301B	J301B Storage Tank					x	x	x	
J302B	J302B Storage Tank					x	x	x	
J303B	J303B Storage Tank					x	x	x	
J304	J304 Storage Tank					x	x	x	
J305B	J305B Storage Tank					x	x	x	
J306	J306 Storage Tank					x	x	x	
J308	J308 Storage Tank					x	x	x	
J312	J312 Storage Tank					x	x	x	
J315	J315 Storage Tank					x	x	x	
J316	J316 Storage Tank					x	x	x	
J318B	J318B Storage Tank					x	x	x	x
J320	J320 Storage Tank					x	x		x
J322	J322 Storage Tank					x	x	x	
J323	J323 Storage Tank					x	x	x	
J325	J325 Storage Tank					x	x	x	
J326	J326 Storage Tank					x	x	x	
J328	J328 Storage Tank					x	x	x	
J329	J329 Storage Tank					x	x	x	
J330	J330 Storage Tank					x	x	x	
J331	J331 Storage Tank					x	x	x	
J332	J332 Storage Tank					x	x	x	
J333	Storage Tank J333					x	x	x	
J334	Storage Tank J334					x	x	x	
J335	Storage Tank J335					x	x	x	
J339R1	Storage Tank J339R1					x	x	x	
J340	J340 Storage Tank					x	x	x	
J341	Storage Tank J341					x	x		x
J348	J348 Storage Tank					x	x	x	
J349	J349 Storage Tank					x	x	x	
K301	K301 Storage Tank					x	x	x	
K302	K302 Storage Tank					x	x	x	
K303	K303 Storage Tank					x	x	x	
K304	K304 Storage Tank					x	x	x	
K305	Storage Tank K305					x	x	x	
K310	K310 Storage Tank					x	x	x	
K311	K311 Storage Tank					x	x	x	

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LDSULF67	SR6 and SR7 Loading Rack							X	
M301	Marine Fuel Oil Storage Tank					X	X	X	
M302	Marine Diesel Storage Tank					X	X	X	
MARLOAD	Marine Loading					X	X	X	
MARSCRUB	Center Dock & Barge Dock Scrubbers					X			
MH4CAS	Manhole 4 CAS Vent					X	X	X	X
NAB	North Aeration Basin					X	X	X	X
NETCATOX	NET Catalytic Oxidizer	X	X		X	X	X	X	
NETCC	NET Controlled Centrifuge					X	X	X	
OWATCTF	WW - Alky Tank Farm Oily Water					X	X		
OWDU1	WW- Sewer Oily Water Hub					X	X		X
REFANLZ	Refinery Analyzers	X	X	X	X	X	X	X	
S304	Storage Tank S304					X	X	X	X
S305R1	Storage Tank S305R1					X		X	
S306	S306 Storage Tank					X		X	
S307	S307 Storage Tank					X	X	X	X
S310	S310 Storage Tank					X	X	X	X
S313	S313 Storage Tank					X	X	X	X
S325	S325 Storage Tank					X	X	X	X
S326	S326 Storage Tank					X	X	X	X
S343	S343 Storage Tank					X	X	X	X
S344	S344 Storage Tank					X	X	X	X
S395	S395 Storage Tank					X	X	X	X
S402	S402 Storage Tank					X		X	
SAB	South Aeration Basin					X	X	X	X
SR3/4STACK	SR-3/4 Incinerator	X	X	X	X	X		X	
SR5L01	SR5 Loading Rack							X	
SR5L02	SR5 Loading rack							X	
SR5STACK	SR5 Tail Gas Incinerator	X	X	X	X	X		X	
SR6STACK	SR6 Tail Gas Incinerator	X	X	X	X	X		X	
SR7STACK	SR7 Tail Gas Incinerator	X	X	X	X	X		X	
SR8STACK	SR8 Tail Gas Incinerator	X	X	X	X	X		X	
SRTT	SR3/4 Loading Rack							X	
SS306	SS306 Storage Tank					X			
SS307	SS307 Storage Tank					X			
SS335	SS335 Storage Tank					X	X	X	X
SS336	Storage Tank SS336					X			
SS341	SS341 Storage Tank					X			
SS343	SS343 Storage Tank					X	X	X	
SS348	SS348 Storage Tank					X	X	X	X
SS351	Storage Tank SS351					X			

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SS388	SS388 Storage Tank					X			
SS390	Storage Tank SS390					X	X	X	X
SS396	SS396 Storage Tank					X			
SS409	Storage Tank SS409					X			
SS425	SS425 Storage Tank					X	X		X
T1211	T1211 Storage Tank					X			
T1212	T1212 Storage Tank					X		X	
T1710	T1710 Storage Tank					X			
T301	T301 Storage Tank					X	X		X
T302	T302 EXTFLT Refinery WW Storage Tank					X	X		X
T315	T315 Storage Tank					X			
T316	Methanol Storage Tank					X			
T5808	Storage Tank T5808					X	X	X	
T5809	Storage Tank T5809					X	X	X	
T93002	T93002 DEA Storage Tank					X			X
T93401R1	Storage Tank T93401R1							X	
T93402	T93402 MDEA Storage Tank					X			
TC&G	WW – Thermal Cracking and Gas Treating					X	X	X	X
TCACIDLOA D	Acid Tank Car Loading					X			
TFSCAS	Trickle Filter Sump CAS Vent					X	X	X	X
U301	U301 Storage Tank					X			
U302	U302 Storage Tank					X			
V1111	V1111 Storage Tank					X			
V5369	CR3 Pressure Vessel					X	X		
V54	Vessel/Regen Gas KO Pot					X			
VA03	VA03 Storage Tank					X	X	X	
VA04	VA04 Storage Tank					X	X	X	
WSAC	Wet Surface Air Cooler			X					
X314	Storage Tank X314					X	X	X	X
X315	Ballast Water Storage Tank					X	X	X	
X320	Ballast Water O/S Storage Tank					X	X	X	
X322	X322 Storage Tank					X	X		X
X323	X323 Storage Tank					X	X		X
X330	WW - Equalization Tank					X	X	X	X
X330SM	WW - Sump					X	X	X	X

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SO₂ - sulfur dioxide
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- | | |
|-------------------|---|
| PM ₁₀ | - total particulate matter equal to or less than 10 microns in diameter, including PM _{2.5} , as represented |
| PM _{2.5} | - particulate matter equal to or less than 2.5 microns in diameter |
| CO | - carbon monoxide |
| H ₂ S | - hydrogen sulfide |
| NH ₃ | - ammonia |
- (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.

Date: January 8, 2021