

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 107153 & PSDTX1328

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)
OC2H121	Cracking Furnace, F-121	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.62	
		H2SO4	0.52	
OC2H122	Cracking Furnace, F-122	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.62	
		H2SO4	0.52	

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OC2H123	Cracking Furnace, F-123	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.62	
		H2SO4	0.52	
OC2H124	Cracking Furnace, F-124	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.62	
		H2SO4	0.52	
OC2H125	Cracking Furnace, F-125	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	

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		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.62	
		H2SO4	0.52	
OC2H126	Cracking Furnace, F-126	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.63	
		H2SO4	0.52	
OC2H127	Cracking Furnace, F-127	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.63	
		H2SO4	0.52	

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OC2H128	Cracking Furnace, F-128	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC	0.74	
		Ethylene	0.28	
		NH3	2.63	
		H2SO4	0.52	
OC2H121, OC2H122, OC2H123, OC2H124, OC2H125, OC2H126, OC2H127, and OC2H128	Cracking Furnace Source Group Cap	CO		268.40
		NOx	47.60	194.29
		SO2	40.00	11.04
		PM	14.85	65.05
		PM10	14.85	65.05
		PM2.5	14.85	65.05
		VOC		24.15
		Ethylene		9.10
		NH3		81.87
		H2SO4	3.74	2.96
OC2F5961	Pressure-Assisted Flare, GF-596	CO	10.78	
		NOx	2.07	
		SO2	0.10	
		VOC	3.45	
		Ethylene	0.93	

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		Propylene	0.22	
OC2F597	Low Pressure Flare, FS-597	CO	17.61	
		NOx	2.52	
		SO2	0.65	
		VOC	4.58	
		Ethylene	0.05	
		Propylene	0.01	
		NH3	<0.01	
OC2TOX	LHC-9 TOX	CO	1.10	
		NOx	0.67	
		SO2	0.16	
		PM	0.08	0.20
		PM10	0.08	0.20
		PM2.5	0.08	0.20
		VOC	0.37	
OC2F5961, OC2F597, and OC2TOX	Flare / TOX Source Group Cap	CO		89.00
		NOx		14.88
		SO2		0.08
		PM		0.20
		PM10		0.20
		PM2.5		0.20
		VOC		14.42
		Ethylene		4.32
		Propylene		0.99
		NH3		<0.01

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OC2CT936	Cooling Tower CT-936	VOC	3.53	15.46
		Ethylene	1.96	5.72
		Propylene	1.99	5.30
		PM	0.95	4.14
		PM10	0.51	2.24
		PM2.5	0.01	0.01
OC2FU2	Process Area Fugitives (5)	CO	0.02	0.10
		VOC	3.27	14.30
		Ethylene	1.46	6.38
		Propylene	0.23	0.99
		CL2	0.01	0.05
		HCL	0.02	0.08
		NH3	0.10	0.42
OC2GE1	Backup Diesel Generator No. 1	CO	1.17	0.06
		NOx	6.09	0.29
		SO2	0.23	0.01
		PM	0.14	0.01
		PM10	0.14	0.01
		PM2.5	0.14	0.01
		VOC	0.44	0.02
OC2GE2	Backup Diesel Generator No. 2	CO	1.17	0.06
		NOx	6.09	0.29
		SO2	0.23	0.01
		PM	0.14	0.01
		PM10	0.14	0.01

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		PM2.5	0.14	0.01
		VOC	0.44	0.02
OC2SV923	15% HCL Storage Tank, V-921	HCL	<0.01	0.01

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10

IOC-U - inorganic compounds (unspeciated)

NOx - total oxides of nitrogen

SO2 - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented

PM10 - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented

PM2.5 - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

Cl2 Chlorine gas

HCL Hydrochloric Acid

NH3 Ammonia

H2SO4 Sulfuric Acid

HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(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: March 27, 2014