

Emission Sources - Maximum Allowable Emission Rates

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Permit Number 107153 & PSDTX1328M1

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 (a.k.a. Heater H-121)	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
		H2SO4	0.52	
OC2H122	Cracking Furnace, F-122 (a.k.a. Heater H-122)	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
		H2SO4	0.52	

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OC2H123	Cracking Furnace, F-123 (a.k.a. Heater H-123)	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
OC2H124	Cracking Furnace, F-124 (a.k.a. Heater H-124)	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
OC2H125	Cracking Furnace, F-125 (a.k.a. Heater H-125)	PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
		H2SO4	0.52	
OC2H126	Cracking Furnace, F-126 (a.k.a. Heater H-126)	CO	21.51	
		NOx	8.97	
		SO2	8.50	
		PM	2.50	
		PM10	2.50	

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		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.62	
		H2SO4	0.52	
OC2H126	Cracking Furnace, F-126 (a.k.a. Heater H-126)	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
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OC2H127	Cracking Furnace, F-127 (a.k.a. Heater H-127)	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.63	
		H2SO4	0.52	

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OC2H128	Cracking Furnace, F-128 (a.k.a. Heater H-128)	CO	21.55	
		NOx	8.99	
		SO2	8.51	
		PM	2.50	
		PM10	2.50	
		PM2.5	2.50	
		VOC (6)	1.73	
		Ethylene	1.36	
		NH3	2.63	

OC2H125	Cracking Furnace, F-125 (a.k.a. Heater H-125)			11.04
OC2H126				
OC2H127				29.14
OC2H128				
OC2H125, OC2H126, OC2H127, and OC2H128		SO2	40.00	11.04
		PM	14.85	65.05
		PM10	14.85	65.05
		PM2.5	14.85	65.05
		VOC (6)		29.14
		Ethylene		7.30
		NH3		81.87
		H2SO4	3.52	2.96
OC2MEH121- OC2MEH125	Cracking Furnaces F-121 – F-125 (a.k.a. Heaters H-121 – H-125) Maintenance, Start-ups and Shutdowns (MSS)	NOx	16.00	
		CO	23.02	

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OC2MEH126- OC2MEH128	Cracking Furnaces F-126 – F-128 (a.k.a. Heaters H-126 – H-128) MSS	NOx	16.00	
		CO	23.02	
OC2MEFP121	H-121 Fuel Purge	VOC	0.60	0.01
OC2MEFP122	H-122 Fuel Purge	VOC	0.60	0.01
OC2MEFP123	H-123 Fuel Purge	VOC	0.60	0.01
OC2MEFP124	H-124 Fuel Purge	VOC	0.60	0.01
OC2MEFP125	H-125 Fuel Purge	VOC	0.60	0.01
OC2MEFP126	H-126 Fuel Purge	VOC	0.60	0.01
OC2MEFP127	H-127 Fuel Purge	VOC	0.60	0.01
OC2ME				
OC2ST91	15% Storage Tank, HCL		0.01	0.01
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OC2CT916	ooling water			1
				8
		Propylene	2.20	5.87
		PM	1.05	4.58
		PM10	0.57	2.48
		PM2.5	0.01	0.01
OC2F596	Pressure-Assisted Flare (a.k.a. Multipoint Ground Flare), GF-596 (Routine)	CO	13.03	
		NOx	2.51	
		SO2	0.24	
		VOC (7)	3.50	
		Ethylene	0.93	
		Propylene	0.22	
OC2F596	Pressure-Assisted Flare (a.k.a.	CO	1756.39	

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		NOx	879.52	
		SO2	0.01	
		VOC (7)	1801.87	
		Ethylene	808.14	
		Propylene	93.18	
OC2F597	Low Pressure Flare, FS-597	CO	25.59	
		NOx	5.02	
		SO2	1.03	
		VOC (7)	7.31	
OC2TOX	Flare / TOX Source Group Cap	PM2.5	0.08	
		VOC (7)	0.41	
		CO		192.15
		NOx		58.93
OC2F596, OC2F597, and OC2TOX		SO2		0.14
		PM10		0.20
		PM2.5		0.20
		VOC (7)		40.53
		Ethylene		21.84
		Propylene		1.75

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OC2FU2	Process Area Fugitives (5)	CO	0.01	0.02
		VOC (7)	3.13	13.70
		Ethylene	2.19	9.60
		Propylene	0.21	0.93
		CL2	0.01	0.06
		HCL	0.30	1.30
		NH3	0.40	1.75
OC2GE1	Backup Diesel Generator No. 1	CO	0.55	0.03
		NOx	2.88	0.14
OC2GE2	Backup Diesel Generator No. 2	PM10	0.07	0.01
		PM2.5	0.07	0.01
		VOC	0.21	0.01
		SO2	0.11	0.01
OC2MEFU2	Equipment Opening Fugitives (MSS)	PM10	0.07	0.01
		PM2.5	0.07	0.01
		VOC	0.21	0.01
		CO	0.03	0.01
	MSS Activities (Attachment A)	VOC (7)	385.23	0.62
		Ethylene	170.91	0.16
		Propylene	123.00	0.15
		VOC (7)	0.74	0.10
		Ethylene	0.13	0.02
		Propylene	0.20	0.03

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FOOTNOTES

(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 tac § 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 PM₁₀ and PM_{2.5}, as represented

PM10 - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as

PM2.5

CO - carbon monoxide

Cl2 - Chlorine gas

HCL - Hydrogen chloride

NH3 - Ammonia

H2SO4 - Sulfuric Acid

HAP - Hazardous Air Pollutants as defined in 30 TAC § 101.04(1) and 40

(4) Comp

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) VOC emissions listed include ethylene.

(7) VOC emissions listed include ethylene and propylene.

Date: March 27, 2014

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