

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 22100

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.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
S-34	North Boiler	PM ₁₀	0.21	0.93
		VOC	0.15	0.67
		NO _x	2.79	12.20
		CO	2.34	10.25
		SO ₂	0.01	0.04
S-35	South Boiler	PM ₁₀	0.25	1.08
		VOC	0.18	0.78
		NO _x	3.23	14.15
		CO	2.71	11.89
		SO ₂	0.01	0.05
S-6A	North Sulfur Heater A	PM ₁₀	0.05	0.22
		VOC	0.037	0.16
		NO _x	0.70	2.93
		CO	0.56	2.46
		SO ₂	<0.01	0.01
S-6B	North Sulfur Heater B	PM ₁₀	0.05	0.22
		VOC	0.04	0.16
		NO _x	0.70	2.93
		CO	0.56	2.46
		SO ₂	<0.01	0.01
S-5A	North Methane Heater A	PM	<0.01	0.04
		VOC	<0.01	0.03
		NO _x	0.11	0.49
		CO	0.09	0.41
		SO ₂	<0.01	<0.01

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			lb/hr	TPY**
S-5b	North Methane Heater B	PM	<0.01	0.04
		VOC	<0.01	0.03
		NO _x	0.11	0.49
		CO	0.09	0.41
		SO ₂	<0.01	<0.01
S-14	Unit 196 Reactor Heater	PM	0.01	0.04
		VOC	<0.01	0.03
		NO _x	0.11	0.49
		CO	0.09	0.41
		SO ₂	<0.01	<0.01
S-15	196 Unit Driers Regen Heater	PM	0.01	0.02
		VOC	<0.01	0.02
		NO _x	0.07	0.29
		CO	0.06	0.25
		SO ₂	<0.01	<0.01
S-37	Unit 196 Hot Oil Heater	PM	0.04	0.17
		VOC	0.03	0.12
		NO _x	0.50	2.20
		CO	0.42	1.85
		SO ₂	<0.01	0.01
S-38	Unit 197 Hot Oil Heater	PM	0.07	0.30
		VOC	1.46	1.46
		NO _x	0.89	3.90
		CO	0.75	3.28
		SO ₂	1.13	0.06
T-9770	Tank T-9770	VOC	3.96	0.67
T-9606	Tank T-9606	VOC	3.96	0.67
T-9635	Tank T-9635	VOC	3.96	1.03
T-9641	Tank T-9641	VOC	3.96	0.90
V-8077	Tank V-8077	H ₂ S	<0.01	<0.01

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				lb/hr	TPY**
		SO ₂	0.17	0.13	
T-8078	Tank V-8078	H ₂ S		<0.01	<0.01
		SO ₂	0.17	0.13	
V-8001	Sulfur Pit	H ₂ S		0.10	0.45
		SO ₂	2.58	11.29	
T-9094	Tank T-9094	VOC		2.89	0.74
T-9705	Tank T-9705	VOC		0.20	0.01
TX-9280	Tank TX-9280	VOC		0.05	<0.01
P-FLR	Plant Flare	VOC		12.7	20.56
		SO ₂	600.00	935.50	
		NO _x	1.11	2.57	
		CO	4.79	11.08	
S-17	Thermal Oxidizer	PM		2.00	8.76
		HCl	0.10	0.44	
		SO ₂	567.91	603.60	
		NO _x	1.32	5.80	
		CO	73.30	109.90	
		VOC	0.32	1.40	
		CH ₃ SH		<0.01	0.04
		CS ₂ /TRS		0.34	0.36
F-180	180 Unit Fugitives (4)	VOC		0.46	2.01
		H ₂ S	0.19	0.84	
F-196	196 Unit Fugitives (4)	VOC		0.27	1.20
		H ₂ S	0.15	0.66	
F-197	197 Unit Fugitives (4)	VOC		0.36	1.57
		H ₂ S	0.19	0.85	

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F-293	293 Unit Fugitives (4)	VOC	0.16	0.69
		H ₂ S	0.36	1.58
F-HZWST	Haz. Storage/Handling	VOC	0.18	0.78
		H ₂ S	<0.01	<0.01
EAST CT	East Cooling Tower	VOC	0.16	0.26
F-WST-WTR	Wastewater	VOC	0.22	0.82
S-PYRO	Pyrolysis Furnace	PM	0.01	0.01
		NO _x	0.03	0.03
		VOC	0.02	0.02
		SO ₂	<0.01	<0.01
		CO	0.05	0.05
T-9662	Tank 9662	VOC	2.89	0.74
WESTCT	West Cooling Tower	VOC	0.40	0.90
		H ₂ S	0.40	0.90
WESTCT2	West Cooling Tower 2	VOC	0.11	0.25
		H ₂ S	0.11	0.25

(1) Emission point identification - either specific equipment designation or emission point number 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 30 Texas Administrative Code Section 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - particulate matter, suspended in the atmosphere, including PM₁₀.

PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

CO - carbon monoxide

HCl - hydrogen chloride

H₂S - hydrogen sulfide

CS₂/TRS - carbon disulfide/total reduced sulfur

CH₃SH - mercaptan

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(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

* 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.

Dated_____