

Attachment A.2

Emission Sources - Maximum Allowable Emission Rates

Permit Number 2193

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
			TPY (4)
BOILER-4	Steam Boiler No. 4 (14.7 MMBtu/hr fired duty)	CO	0.97
		NO _x	6.44
		PM ₁₀	0.06
		SO ₂	0.04
		VOC	0.26
VCU System No. 1 (VCU-1A and VCU-1B)	TR, RC, and Marine VCU	CO	30.17
		NO _x	3.52
		SO ₂	0.01
		VOC	60.23
TNK-VCU-2	Tank 125-1 and Tank 187-1 Controlled Roof Landings	CO	16.27
		NO _x	8.15
		SO ₂	0.04
		VOC	2.72
Flare System No. 2 (FL-2a, FL-2b, and FL-2c)	TR, RC, and Marine Flares	CO	30.17
		NO _x	3.52
		SO ₂	0.01
		VOC	61.00
	Barge and Ship Emission Losses Uncontrolled	VOC	5.62
	Rail and Truck Emission Losses Uncontrolled	VOC	45.00
BD3-LDFUG	Barge Dock No. 3 Loading Losses VP < 0.50 psia Uncontrolled	VOC	2.32

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Sump-1	Wastewater Sumps	VOC	2.85
TK-DEGAS	Annual Controlled Tank Degassing (9)	NO _x	1.01
		CO	2.03
	Annual Controlled Degassing Tank Maintenance Sub-Cap (7)	NO _x	0.04
		CO	0.07
Storage Tanks	Total Annual (TPY) Cap (5)	VOC	410.00
	Annual Tank Maintenance Sub-Cap (8)	VOC	18.19
FUG	Process Fugitives (4)	VOC	33.33
TNK-VCU-1A and TNK-VCU-1B	East Plant Tank Roof Landing TNK-VCU No 1A and TNK-VCU No. 1B Annual Emissions Cap	VOC	10.48
		NO _x	22.56
		CO	45.03
SD-4-VCU	Ship Dock No. 4 VCU (6)	VOC	6.01
		Benzene	0.05
		NO _x	8.94
		CO	17.84
		SO ₂	0.01
SD-4-LOADFUG	Ship Dock No. 4 Loading Fugitives (6)	VOC	61.30
		Benzene	0.59
CAMU	Corrective Action Management Unit	VOC	0.11
MSS Cap	MSS Activities (6)	VOC	0.57
		Benzene	0.45
MSS Cap	MSS Activities (6)	NO _x	0.03
		CO	0.10

- (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) CO - carbon monoxide
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM₁₀ - particulate matter equal to or less than 10 microns in diameter
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1

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- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Annual emissions cap for tanks covers routine emissions as well emissions from tank roof landings, controlled tank degassing, and uncontrolled tank degassing attributable to routine product changes and planned maintenance, startup, and shutdown (MSS) activities.
- (6) Benzene is included in VOC.
- (7) Annual Controlled Tank Degassing Maintenance Sub-Cap covers emissions from controlled tank degassing attributable planned MSS activities as represented in Special Condition No. 22.A. Cap is a sub-cap of Annual Controlled Tank Degassing annual cap.
- (8) Annual Tank Maintenance Sub-Caps cover emissions from tank roof landings, controlled tank degassing, and uncontrolled tank degassing attributable to planned MSS activities as represented in Special Condition No. 22.A. Cap is a subcap of Total Annual Storage Tank (tons per year) Cap.
- (9) Annual Controlled Tank Degassing cap covers emissions from controlled tank degassing attributable to routine product changes and planned MSS activities.

* Emission rates are based on the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52

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

Dated April 15, 2013