

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 56566

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**
104	Spent Acid Furnace (5)	VOC	0.01	0.01
117	Steam Boiler (8) (Normal Operation is 2,100 hours per calendar year)	CO	6.03	6.20
		NH ₃	0.37	0.38
		NO _x	0.59	0.61
		PM ₁₀	0.82	0.84
		SO ₂	0.07	0.07
		VOC	0.59	0.62
117MSS	Steam Boiler (9) (Planned Maintenance, Start-up and Shutdown Activities)	CO	6.03	0.13
		NH ₃	0.37	0.01
		NO _x	30.20	0.48
		PM ₁₀	0.82	0.02
		SO ₂	0.07	0.01
		VOC	0.59	0.01
122	Spent Acid Caustic Scrubber (6) (1,314 hours per calendar year)	SO ₂	0.03	0.01
		VOC	7.99	0.09
123	Spent Acid Caustic Scrubber (7) (1,314 hours per calendar year)	SO ₂	0.03	0.01
		VOC	7.99	0.09
124	Tank 77 Oleum Storage Vent	H ₂ SO ₄	0.01	0.01
125	Oleum Barge Loading Vent	H ₂ SO ₄	0.01	0.01
126	Oleum Rail Loading Stack Vent	H ₂ SO ₄	0.47	0.12
127	Oleum Vent Stack System	H ₂ SO ₄	0.01	0.01
127MSS	Oleum Tanks 15, 18 and 31	H ₂ SO ₄	0.01	0.01

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Planned MSS Activities				
130	Oleum Tank Truck Loading Vent Stack	H ₂ SO ₄	0.03	0.01
301A	AWT Neutralization Tanks 301, 301A and 302	SO ₂	0.67	2.95
		VOC	0.01	0.01
FUG-LOAD	Spent Sulfuric Acid Dock Uncollected Loading Losses	SO ₂	1.32	0.10
		VOC	0.42	0.03
PIT-LOAD	Molten Sulfur Pit Loading Operation	H ₂ S	0.38	0.41
		SO ₂	0.02	0.01
		VOC	0.01	0.01
PIT	Molten Sulfur Pit Normal Operation	H ₂ S	0.03	0.13
		SO ₂	0.01	0.01
		VOC	0.01	0.01
S1	Molten Sulfur Tank 802 Normal Operation	H ₂ S	0.56	2.45
		SO ₂	0.01	0.02
		VOC	0.01	0.05
S1-LOAD	Molten Sulfur Tank 802 Loading Operation	H ₂ S	2.23	0.70
		SO ₂	0.01	0.01
		VOC	0.08	0.03
S2	Molten Sulfur Tank 801 Normal Operation	H ₂ S	0.56	2.45
		SO ₂	0.01	0.02
		VOC	0.01	0.05
S2-LOAD	Molten Sulfur Tank 801 Loading Operation	H ₂ S	2.23	0.70
		SO ₂	0.01	0.01
		VOC	0.08	0.02
SWINGTK	Swing Tanks 312, 313, 314 and 315	SO ₂	0.01	0.01
		VOC	0.01	0.01

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			lb/hr	TPY**
VACTKFUG	Vacuum Truck Loading Losses Oleum Tanks Planned MSS	H ₂ SO ₄	0.01	0.01
		SO ₂	0.01	0.01
FUG-AWT	Advance Water Treatment Fugitives (4)	SO ₂	0.01	0.01
		VOC	0.01	0.01
FUG-OLEUM1	Oleum Process Fugitives (4)	H ₂ SO ₄	0.09	0.40
FUG-OLEUM2	Oleum Process Fugitives (4)	H ₂ SO ₄	0.02	0.06
FUG-OLEUM3	Oleum Process Fugitives (4)	H ₂ SO ₄	0.03	0.12
FUG-OLEUM4	Oleum Process Fugitives (4)	H ₂ SO ₄	0.02	0.08
FUG-PIT	Sulfur Pit Fugitives (4)	H ₂ S	0.01	0.01
		SO ₂	0.01	0.01
		VOC	0.01	0.01
FUG-S1S2	Sulfur Tanks Fugitives (4)	H ₂ S	0.01	0.01
		SO ₂	0.01	0.01
		VOC	0.01	0.01

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- (1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
- (3)
 - CO - carbon monoxide
 - H₂S - hydrogen sulfide
 - H₂SO₄ - sulfuric acid mist
 - NH₃ - ammonia
 - NO_x - total oxides of nitrogen
 - PM₁₀ - particulate matter (PM) less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 - SO₂ - sulfur dioxide
 - VOC - volatile organic compounds as defined in the Title 30 Texas Administrative Code § 101.1
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Only emissions from this permitted facility are shown as controlled by the Spent Acid Furnace (EPN 104) authorized under Permit Number 4802.
- (6) This EPN shall emit collected barge loading vapors from this permitted facility until the emissions are successfully routed to EPN 123. Emissions may not be routed to either caustic scrubber for more than a total combined 1,314 hours per calendar year. The VOC emissions from this permitted facility are controlled by the Vapor Combustor (EPN 170) authorized under Permit Number 4802. These emissions are based on the worst-case scenario when the Vapor Combustor (EPN 170) and the Furnace (EPN 104) are down.
- (7) This EPN shall emit collected barge loading vapors from this permitted facility after emissions are successfully re-routed from EPN 122. Emissions may not be routed to either caustic scrubber for more than 1,314 hours per calendar year. The vapor combustor does not control VOC emissions from this permitted facility.
- (8) Emissions are authorized under the Standard Permit Number 81025 for the addition of a selective catalytic reduction (SCR) to control NO_x. They are incorporated by reference only.
- (9) The planned maintenance, start-up, and shutdown (MSS) emissions are from the planned MSS activities on the boiler when the SCR does not control NO_x.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

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

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

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Dated month day, 2011

DRAFT