

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 18277 and PSD-TX-802

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 ** |
| 27STK_001 | Pretreater Heater H-3401 | CO | 3.06 | 13.42 |
| | | NO _x | 11.04 | 48.36 |
| | | PM ₁₀ | 1.78 | 7.80 |
| | | SO ₂ (5) | 2.30 | 10.07 |
| | | VOC | 0.25 | 1.09 |
| 27STK_002 | Stripper Reboiler H-3402 | CO | 2.97 | 13.01 |
| | | NO _x | 8.36 | 36.62 |
| | | PM ₁₀ (9) | 1.31 | 5.74 |
| | | SO ₂ (5) | 2.15 | 9.42 |
| | | VOC | 0.24 | 1.05 |
| 27STK_003 | Reformer Heaters H-3403 through H-3406 | CO | 44.40 | 105.90 |
| | | NO _x | 77.40 | 211.03 |
| | | PM ₁₀ (9) | 1.96 | 6.27 |
| | | SO ₂ (8) | 17.52 | 28.01 |
| | | VOC | 1.20 | 3.84 |
| 27STK_004 | Debutanizer Reboiler H-3408 | CO | 6.66 | 12.30 |
| | | NO _x | 5.40 | 21.02 |
| | | PM ₁₀ | 0.83 | 3.22 |
| | | SO ₂ (5) | 2.63 | 10.23 |
| | | VOC | 0.25 | 0.98 |
| 27VNT_001 | Regenerator Vent | CO | 1.48 | 4.80 |
| | | HCl (6) | 0.56 | 3.05 |
| | | | 3.29 (7) | |
| | | NO _x | 0.98 | 4.30 |
| | | PM ₁₀ | 0.06 | 0.25 |
| | | SO ₂ (5) | 0.68 | 3.00 |

| | | | | |
|-----------|---------------|-----------------|-------|-------|
| 27FUG_001 | Fugitives (4) | Cl ₂ | 0.10 | 0.44 |
| | | VOC | 14.81 | 64.85 |

- (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 area name or fugitive source name.
- (3) CO - carbon monoxide
NO_x - total oxides of nitrogen
PM₁₀ - particulate matter (PM) equal to or 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 30 Texas Administrative Code § 101.1
HCl - hydrogen chloride
Cl₂ - chlorine
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Based on maximum fuel hydrogen sulfide content of 150 parts per million.
- (6) 22.9 percent of hydrogen chloride emissions are in the form of chlorine.
- (7) This rate allowed only under scrubber planned maintenance conditions for one hour per year.
- (8) Annual limits based on maximum fuel hydrogen sulfide content of 75 parts per million; hourly limits based on maximum fuel hydrogen sulfide content of 150 parts per million.
- (9) PSD-TX-802 pollutant.

* 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.

Dated April 20, 2009