

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 17573

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** |
| EA-1 | "X" Pneumatic Stack | VOC | 23.0 | 12.0 |
| | | Styrene | 19.2 | 10.0 |
| EA-2 | "Y" Pneumatic Stack | VOC | 23.0 | 12.0 |
| | | Styrene | 19.2 | 10.0 |
| EA-3 | "Z" Pneumatic Stack | VOC | 23.0 | 12.0 |
| | | Styrene | 19.2 | 10.0 |
| E10-1 | Unloading Baghouse (12) | PM | 1.0 | 4.3 |
| E10-1 | Unloading Baghouse (13) | PM | 3.31 | 5.6 |
| E10-2 | Receiver Baghouse (12) | PM | 0.4 | 1.8 |
| E10-2 | Receiver Baghouse (13) | PM | 1.37 | 2.3 |
| E10-3 | Vacuum Baghouse (12) | PM | 0.1 | 0.4 |
| E10-3 | Vacuum Baghouse (13) | PM | <0.01 | 0.03 |
| E10-4 | Scrubber (12) | PM | 1.2 | 5.3 |
| E10-4 | Scrubber (13) | PM | 1.95 | 6.8 |
| E11-1 | NH ₃ Compressor (440-hp) | VOC | 0.1 | 0.5 |
| | | NO _x | 8.6 | 37.7 |
| | | CO | 6.0 | 26.2 |

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|---------------------------|-------------------------------------|-----------------------------|------------------|-------|
| | | | lb/hr | TPY** |
| E11-2 | NH ₃ Compressor (440-hp) | VOC | 0.1 | 0.5 |
| | | NO _x | 8.6 | 37.7 |
| | | CO | 6.0 | 26.2 |
| E11-3 | NH ₃ Compressor (550-hp) | VOC | 0.1 | 0.6 |
| | | NO _x | 10.7 | 47.2 |
| | | CO | 7.5 | 32.7 |
| E11-4 | NH ₃ Compressor (440-hp) | VOC | 0.1 | 0.5 |
| | | NO _x | 8.6 | 37.7 |
| | | CO | 6.0 | 26.2 |
| E11-5 | NH ₃ Compressor (440-hp) | VOC | 0.1 | 0.5 |
| | | NO _x | 8.6 | 37.7 |
| | | CO | 6.0 | 26.2 |
| E13-1 | Recycle Styrene Tank T-101 | VOC | | 0.2 |
| E13-2 | Recycle Styrene Tank T-102 | VOC | | 0.2 |
| E13-3 | Pure Styrene Tank T-103 | VOC | | 0.2 |
| E13-4 | Pure Styrene Tank T-104 | VOC | | 0.2 |
| E13-6 | Sulfuric Acid Tank (5) | SO ₂ | <0.1 | <0.1 |
| E-15 | Butadiene Flare (6) | VOC | 1.2 | 1.7 |
| | | NO _x | 0.16 | 0.47 |
| | | CO | 0.89 | 2.65 |
| E15-1 | Regenerative Thermal Oxidizer | VOC | 16.6 | 24.3 |
| | | NO _x | 7.7 | 33.7 |
| | | SO ₂ | 2.3 | 10.0 |
| | | PM | 0.2 | 0.9 |
| | | CO | 12.6 | 55.0 |
| F3-1 | Reactor Area Fugitives (4) | VOC | 1.76 | 9.2 |

| | | | | |
|--------|--|-----------------------------------|--------------------|---------------------|
| | | NH ₃ | 9.0 | 39.4 |
| F4-1 | Recovery Area Fugitives (4 and 7) | VOC | 2.15 | 10.0 |
| F5-1 | Latex Area Fugitives (4) | Styrene | 0.02 | 0.1 |
| F6-1 | Coagulation Area Fugitives (4) (53 Building Exhaust Vents) | VOC Styrene | 5.8 4.8 | 22.8 19.0 |
| E6-1 | Coagulation Area Stack and Electrodialysis Reversal Water Treatment Unit (8) | VOC Styrene Cl ₂ | 7.4 6.2 0.02 | 10.4 8.7 0.07 |
| F7-1 | Butadiene Comp Fugitives (4) | VOC | 0.02 | 0.1 |
| F13-1 | Tank Farm Fugitives (4) | VOC | 0.1 | 0.35 |
| F10-1 | Carbon Black Fugitives (4) | PM | 0.43 | 1.9 |
| F11-1 | NH ₃ Compressor (4) | NH ₃ | 3.86 | 16.9 |
| F12-1 | Wastewater System Fugitives | VOC Styrene | 11.0 8.6 | 32.4 27.1 |
| F-13-5 | Styrene Unloading Component Fugitives (4 and 9) | Styrene | 0.03 | 0.11 |
| F16-1 | Wastewater Vacuum Decanter System (10) | Styrene | 0.45 | 1.97 |
| F-20 | Butadiene Unloading Area Fugitives (4 and 11) | 1, 3-Butadiene | 0.41 | 1.86 |

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- (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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code Section 101.1 including styrene
 - 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.
 - NO_x - total oxides of nitrogen
 - CO - carbon monoxide
 - SO₂ - sulfur dioxide
 - NH₃ - anhydrous ammonia
 - Cl₂ - chlorine
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Source previously authorized under Permit Exemption No. X-21126.
- (6) Previous authorizations under Permit Exemption No. X-22986, Standard Permit No. 35702, and Standard Exemption Registration No. 36031.
- (7) Includes fugitive emissions associated with the refrigerated condenser previously authorized under Standard Exemption Registration No. 36031.
- (8) Source previously authorized under Permit Exemption No. X-21127.
- (9) Source previously authorized under Standard Exemption Registration No. 34523.
- (10) Source previously authorized under Permit Exemption No. X-21136.
- (11) Source previously authorized under Permit Exemption No. X-22985.
- (12) These emission rates shall be in effect until the stack height of the Scrubber (EPN 10-4) is increased to 80 feet.
- (13) These emission rates shall be in effect after the stack height of the Scrubber (EPN 10-4) is increased to 80 feet.

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

Hrs/day____Days/week____Weeks/year____or Hrs/year 8,760

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

Dated January 29, 2002