

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 42179, PSDTX955, and N021

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 | |
|---|--|--------------------------------|----------------|---------|
| | | | lbs/hour | TPY (4) |
| Turbines, Duct Burners, and Auxiliary Boilers (Hourly Limits) | | | | |
| GTG/HRSG1 | Turbine/HRSG No. 1 (Westinghouse 501F Turbine with 475 MMBtu/hr Duct Burner) | NO _x (5) | 32.1 | --- |
| | | CO | 346.0 | --- |
| | | PM ₁₀ | 29.4 | --- |
| | | VOC | 26.9 | --- |
| | | SO ₂ | 31.4 | --- |
| | | NH ₃ | 28.0 | --- |
| | | H ₂ SO ₄ | 4.8 | --- |
| GTG/HRSG2 | Turbine/HRSG No. 2 (Westinghouse 501F Turbine with 475 MMBtu/hr Duct Burner) | NO _x (5) | 32.1 | --- |
| | | CO | 346.0 | --- |
| | | PM ₁₀ | 29.4 | --- |
| | | VOC | 26.9 | --- |
| | | SO ₂ | 31.4 | --- |
| | | NH ₃ | 28.0 | --- |
| | | H ₂ SO ₄ | 4.8 | --- |
| AUXBOIL 1 | Auxiliary Steam Boiler No. 1 (Rated at 430 MMBtu/hr) | NO _x (5) | 22.8 | --- |
| | | CO | 26.2 | --- |
| | | PM ₁₀ | 7.6 | --- |
| | | VOC | 7.6 | --- |
| | | SO ₂ | 6.23 | --- |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|--|--------------------------------|---------|-----|
| | | H ₂ SO ₄ | 0.95 | --- |
| AUXBOIL 2 | Auxiliary Steam Boiler No. 2 (Rated at 430 MMBtu/hr) | NO _x (5) | 22.8 | --- |
| | | CO | 26.2 | --- |
| | | PM ₁₀ | 7.6 | --- |
| | | VOC | 7.6 | --- |
| | | SO ₂ | 6.23 | --- |
| | | H ₂ SO ₄ | 0.95 | --- |
| AUXBOIL 3 | Auxiliary Steam Boiler No. 3 | NO _x (5) | 22.8 | --- |
| | | CO | 26.2 | --- |
| | | PM ₁₀ | 7.6 | --- |
| | | VOC | 7.6 | --- |
| | | SO ₂ | 6.23 | --- |
| | | H ₂ SO ₄ | 0.95 | --- |
| Turbines, Duct Burners, and Auxiliary Boilers Planned Maintenance, Startup, and Shutdown Limits (6) | | | | |
| GTG/HRSG1 | Turbine/HRSG No. 1 MSS | NO _x | 350.00 | --- |
| | | CO | 3200.00 | --- |
| | | PM ₁₀ | 29.40 | --- |
| | | VOC | 183.49 | --- |
| | | SO ₂ | 31.40 | --- |
| | | NH ₃ | 50.00 | --- |
| | | H ₂ SO ₄ | 4.80 | --- |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|--|--|--------------------------------|---------|-------|
| | | CO | 3200.00 | --- |
| | | PM ₁₀ | 29.40 | --- |
| | | VOC | 183.49 | --- |
| | | SO ₂ | 31.40 | --- |
| | | NH ₃ | 50.00 | --- |
| | | H ₂ SO ₄ | 4.80 | --- |
| AUXBOIL1 | Auxiliary Steam Boiler No. 1 MSS | NO _x | 22.80 | --- |
| | | CO | 31.44 | --- |
| | | SO ₂ | 6.23 | --- |
| | | VOC | 9.12 | --- |
| | | PM ₁₀ | 7.60 | --- |
| AUXBOIL2 | Auxiliary Steam Boiler No. 2 MSS | NO _x | 22.80 | --- |
| | | CO | 31.44 | --- |
| | | SO ₂ | 6.23 | --- |
| | | VOC | 9.12 | --- |
| | | PM ₁₀ | 7.60 | --- |
| AUXBOIL3 | Auxiliary Steam Boiler No. 3 MSS | NO _x | 22.80 | --- |
| | | CO | 31.44 | --- |
| | | SO ₂ | 6.23 | --- |
| | | VOC | 9.12 | --- |
| | | PM ₁₀ | 7.60 | --- |
| Turbines, Duct Burners, and Auxiliary Boilers (Combined Annual Limits) | | | | |
| GTG/HRSG 1-2 and AUXBOIL 1-3 | Turbine/HRSG 1 and 2 and Auxiliary Boilers 1-3 | NO _x | --- | 268.0 |
| | | CO | --- | 937.0 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|--------------------|---|--------------------------------|-------|-------|
| | | PM ₁₀ | --- | 180.0 |
| | | VOC | --- | 102.0 |
| | | SO ₂ | --- | 22.5 |
| | | NH ₃ | --- | 220.0 |
| | | H ₂ SO ₄ | --- | 3.44 |
| Additional Sources | | | | |
| COOLTWR1 | Cooling Tower 1 (7) | PM ₁₀ | 1.22 | 3.13 |
| LUBEOILFUG | Lubricating Oil Systems Fugitives (7) (8) | VOC | 0.097 | 0.29 |
| FUELGASFUG | Fuel Gas System (7) (8) | VOC | 0.179 | 0.53 |
| NH3 | Ammonia Fugitives (7) (8) | NH ₃ | 0.011 | 0.03 |
| OILDEMIST | Oil Mist Eliminator (All turbines) (7) | VOC | 0.024 | 0.06 |
| TK-004 | Americor 1,000-Gallon Storage Tank (7) | VOC | 0.001 | 0.001 |
| TK-004AX | Americor 1,000-Gallon Storage Tank (7) | VOC | 0.001 | 0.001 |

| | | | | |
|--------|-----------------------|-------------------------------------|--------|--------|
| MSSFUG | MSS-Related Fugitives | NO _x | <0.001 | <0.001 |
| | | CO | <0.001 | <0.001 |
| | | VOC | 3.52 | 0.02 |
| | | PM ₁₀ /PM _{2.5} | 0.11 | 0.02 |
| | | NH ₃ | 2.66 | 0.004 |

Emission Sources - Maximum Allowable Emission Rates

- (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 § 101.1 |
| NO _x | - total oxides of nitrogen |
| SO ₂ | - sulfur dioxide |
| PM ₁₀ | - total particulate matter suspended in the atmosphere equal to or less than 10 microns in diameter, including PM _{2.5} , as represented |
| PM _{2.5} | - total particulate matter equal to or less than 2.5 microns in diameter |
| CO | - carbon monoxide |
| NH ₃ | - ammonia |
| H ₂ SO ₄ | - sulfuric acid |
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) The maximum pound per hour (lb/hr) NO_x emission rate is based upon a rolling three-hour concentration.
- (6) For each pollutant whose emissions during planned MSS activities are measured using a continuous emissions monitoring system, the maintenance, startup, and shutdown (MSS) lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (7) The lb/hr and tpy emission limits specified in the table entitled "Emissions Sources - Maximum Allowable Emission Rates" for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (8) Fugitive emissions are an estimate only and should not be considered as maximum allowable emission rates.

Date: December 16, 2011