

Emission Sources - Maximum Allowable Emission Rates

Permit Number 3635A

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 (5) | |
|---------------------------|--|--------------------------|--------------------|---------|
| | | | lbs/hour | TPY (4) |
| EP1 | Boiler 1 Stack 25.2 MMBtu/hr (Natural Gas Combustion) | PM | 0.19 | 0.82 |
| | | PM ₁₀ | 0.19 | 0.82 |
| | | PM _{2.5} | 0.19 | 0.82 |
| | | VOC | 0.14 | 0.60 |
| | | NO _x | 2.47 | 10.82 |
| | | SO ₂ | 0.01 | 0.06 |
| | | CO | 2.08 | 9.09 |
| EP2 | Boiler 2 Stack 25.2 MMBtu/hr (Natural Gas Combustion) | PM | 0.19 | 0.82 |
| | | PM ₁₀ | 0.19 | 0.82 |
| | | PM _{2.5} | 0.19 | 0.82 |
| | | VOC | 0.14 | 0.60 |
| | | NO _x | 2.47 | 10.82 |
| | | SO ₂ | 0.01 | 0.06 |
| | | CO | 2.08 | 9.09 |
| EP3 | Boiler 3 Stack 25.2 MMBtu/hr (Natural Gas Combustion) | PM | 0.19 | 0.82 |
| | | PM ₁₀ | 0.19 | 0.82 |
| | | PM _{2.5} | 0.19 | 0.82 |
| | | VOC | 0.14 | 0.60 |
| | | NO _x | 2.47 | 10.82 |
| | | SO ₂ | 0.01 | 0.06 |

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| | | | | |
|-----|---|-------------------|------|-------|
| EP3 | Boiler 3 Stack 25.2 MMBtu/hr (Natural Gas Combustion) | CO | 2.08 | 9.09 |
| EP4 | Boiler 4 Stack 25.2 MMBtu/hr (Natural Gas Combustion) | PM | 0.19 | 0.82 |
| | | PM ₁₀ | 0.19 | 0.82 |
| | | PM _{2.5} | 0.19 | 0.82 |
| | | VOC | 0.14 | 0.60 |
| | | NO _x | 2.47 | 10.82 |
| | | SO ₂ | 0.01 | 0.06 |
| | | CO | 2.08 | 9.09 |
| EP5 | Boiler 5 Stack 28.35 MMBtu/hr (Natural Gas Combustion) | PM | 0.21 | 0.93 |
| | | PM ₁₀ | 0.21 | 0.93 |
| | | PM _{2.5} | 0.21 | 0.93 |
| | | VOC | 0.15 | 0.67 |
| | | NO _x | 2.78 | 12.17 |
| | | SO ₂ | 0.02 | 0.07 |
| | | CO | 2.33 | 10.23 |
| EP6 | Boiler 6 Stack 28.35 MMBtu/hr (Natural Gas and Biogas Combustion) | PM | 0.30 | 1.22 |
| | | PM ₁₀ | 0.30 | 1.22 |
| | | PM _{2.5} | 0.30 | 1.22 |
| | | VOC | 0.22 | 0.88 |
| | | NO _x | 3.97 | 15.98 |
| | | SO ₂ | 6.49 | 21.04 |
| | | CO | 3.33 | 13.42 |
| EP9 | Boiler 9 Stack 33.6 MMBtu/hr (Natural Gas and | PM | 0.36 | 1.39 |
| | | PM ₁₀ | 0.36 | 1.39 |

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| | | | | |
|-----|---|-----------------------|-------|-------|
| | | PM _{2.5} | 0.36 | 1.39 |
| | | VOC | 0.26 | 1.00 |
| | | NO _x | 4.70 | 18.24 |
| | | SO ₂ | 7.69 | 20.87 |
| | | CO | 3.95 | 15.32 |
| EP7 | Blood Dryer Cyclone Stack 5.5 MMBtu/hr (Natural Gas Combustion and Blood Drying) | PM (6) | 1.91 | 4.28 |
| | | PM ₁₀ (6) | 1.91 | 4.28 |
| | | PM _{2.5} (6) | 0.36 | 0.88 |
| | | VOC | 0.03 | 0.13 |
| | | NO _x | 0.54 | 2.36 |
| | | SO ₂ | <0.01 | 0.01 |
| | | CO | 0.45 | 1.98 |
| | | H ₂ S (6) | 0.12 | 0.27 |
| | | NH ₃ (6) | 0.92 | 2.02 |
| EP8 | Bone Dryer Cyclone Stack 20.0 MMBtu/hr (Natural Gas Combustion and Bone Drying) | PM (7) | 4.09 | 12.96 |
| | | PM ₁₀ (7) | 4.09 | 12.96 |
| | | PM _{2.5} (7) | 0.82 | 2.74 |
| | | VOC | 0.11 | 0.47 |
| | | NO _x | 1.96 | 8.59 |
| | | SO ₂ | 0.01 | 0.05 |
| | | CO | 1.65 | 7.21 |
| | Total Annual Emissions from Natural Gas and Biogas Combustion (Boilers 1, 2, 3, 4, 5, 6, 9 and the Blood and Bone Dryers) | PM | -- | 5.91 |
| | | PM ₁₀ | -- | 5.91 |
| | | PM _{2.5} | -- | 5.91 |
| | | VOC | -- | 4.28 |

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|------|---|-------------------|-------|-------|
| | | NO _x | -- | 77.74 |
| | | SO ₂ | -- | 21.23 |
| | | CO | -- | 65.30 |
| EP10 | Flare Pilot and Lagoon Flare | PM | <0.01 | 0.01 |
| | | PM ₁₀ | <0.01 | 0.01 |
| | | PM _{2.5} | <0.01 | 0.01 |
| | | VOC | 4.39 | 1.26 |
| | | NO _x | 2.04 | 0.71 |
| | | SO ₂ | 34.26 | 9.82 |
| | | CO | 17.22 | 5.00 |
| | | H ₂ S | 0.37 | 0.10 |
| EPS1 | Packed-Bed Room Air Scrubber Stack (Room Air and Cookers) | Odors | -- | -- |
| EP11 | Hammermills Fugitive Emissions | PM | 0.21 | 0.71 |
| | | PM ₁₀ | 0.21 | 0.71 |
| | | PM _{2.5} | 0.04 | 0.12 |
| EP12 | Blood Pneumatic Cyclone Vent | PM | 1.71 | 7.51 |
| | | PM ₁₀ | 1.71 | 7.51 |
| | | PM _{2.5} | 0.29 | 1.28 |
| EP13 | Blood Meal Bin Vent Stack | PM | 0.04 | 0.08 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | <0.01 | <0.01 |
| EP14 | Forsberg Cyclone 1 Vent | PM | 1.54 | 6.76 |
| | | PM ₁₀ | 1.54 | 6.76 |
| | | PM _{2.5} | 0.26 | 1.15 |

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| | | | | |
|------|--|-------------------|-------|-------|
| EP15 | Forsberg Cyclone 2 Vent | PM | 1.54 | 6.76 |
| | | PM ₁₀ | 1.54 | 6.76 |
| | | PM _{2.5} | 0.26 | 1.15 |
| EP16 | MBM Bin Vents Stack | PM | 0.07 | 0.21 |
| | | PM ₁₀ | 0.02 | 0.05 |
| | | PM _{2.5} | <0.01 | 0.01 |
| EP17 | Gel Bone Bin Vent Stack | PM | 0.02 | 0.06 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | <0.01 | <0.01 |
| EP18 | Blood Meal Loadout Chute (Rail or Truck) | PM | 0.33 | 0.01 |
| | | PM ₁₀ | 0.08 | <0.01 |
| | | PM _{2.5} | 0.01 | <0.01 |
| EP19 | MBM Loadout Chute (Rail or Truck) | PM | 0.33 | 0.28 |
| | | PM ₁₀ | 0.08 | 0.07 |
| | | PM _{2.5} | 0.01 | 0.01 |
| EP20 | Gel Bone Loadout | PM | 0.33 | 0.08 |
| | | PM ₁₀ | 0.08 | 0.02 |
| | | PM _{2.5} | 0.01 | <0.01 |

- (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) PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

Emission Sources - Maximum Allowable Emission Rates

NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
CO - carbon monoxide
H₂S - hydrogen sulfide
NH₃ - ammonia

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.
- (6) 4.10 tpy PM/PM₁₀, 0.7 tpy PM_{2.5}, 0.27 tpy H₂S, and 2.02 tpy NH₃ are from blood drying and are not included in the combustion emission caps.
- (7) 12.31 tpy PM/PM₁₀ and 2.09 tpy PM_{2.5} are from bone drying and are not included in the combustion emission caps.

Date: June 10, 2014