Emission Sources - Maximum Allowable Emission Rates

Permit Number 124717

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) |
| **Train 1** | | | | |
| ENG-1 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |
| ENG-2 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |
| ENG-3 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |

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| | | | | |
|---|---|---|---|---|
| ENG-4 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |
| ENG-5 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |
| ENG-6 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.01 | 8.80 |
| | | VOC | 6.26 | 27.42 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.09 |
| TK-1 | Compressor Lube Oil Storage Tank | VOC | 0.35 | <0.01 |
| TK-2 | Engine Lube Oil Storage Tank | VOC | 0.35 | <0.01 |
| TK-3 | Used Lube Oil Storage Tank | VOC | 0.35 | <0.01 |
| TK-6 | Antifreeze/Water Storage Tank | VOC | 0.08 | <0.01 |
| TK-8 | Glycol Storage Tank | VOC | 0.04 | <0.01 |
| TK-DIESEL | Diesel Fuel | VOC | 0.02 | <0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| TK-GAS | Gasoline Fuel Storage Tank | VOC | 5.43 | 0.07 |
| TK-26 | Intercept 400 gal | VOC | <0.01 | <0.01 |
| TK-27 | Clean Cor 400 gal | VOC | <0.01 | <0.01 |
| TK-28 | Clean Cor 217 gal | VOC | <0.01 | <0.01 |
| H-1 | Mole Sieve Regen. Heater | $NO_x$ | 0.62 | 2.73 |
| | | CO | 0.86 | 3.75 |
| | | VOC | 0.06 | 0.25 |
| | | PM | 0.08 | 0.34 |
| | | $PM_{10}$ | 0.08 | 0.34 |
| | | $PM_{2.5}$ | 0.08 | 0.34 |
| | | $SO_2$ | 0.01 | 0.03 |
| H-2 | Cryo Hot Oil Heater | $NO_x$ | 1.58 | 6.91 |
| | | CO | 2.17 | 9.49 |
| | | VOC | 0.14 | 0.62 |
| | | PM | 0.20 | 0.86 |
| | | $PM_{10}$ | 0.20 | 0.86 |
| | | $PM_{2.5}$ | 0.20 | 0.86 |
| | | $SO_2$ | 0.02 | 0.07 |
| H-3 | Amine Hot Oil Heater | $NO_x$ | 5.40 | 23.65 |
| | | CO | 7.41 | 32.46 |
| | | VOC | 1.62 | 7.10 |
| | | PM | 0.67 | 2.94 |
| | | $PM_{10}$ | 0.67 | 2.94 |
| | | $PM_{2.5}$ | 0.67 | 2.94 |
| | | $SO_2$ | 0.09 | 0.40 |
| H-4 | Condensate Stabilization Heater | $NO_x$ | 0.42 | 1.84 |
| | | CO | 0.58 | 2.52 |
| | | VOC | 0.04 | 0.17 |
| | | PM | 0.05 | 0.23 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $PM_{10}$ | 0.05 | 0.23 |
| | | $PM_{2.5}$ | 0.05 | 0.23 |
| | | $SO_2$ | <0.01 | 0.02 |
| H-5 | Glycol Regen. Heater | $NO_x$ | 0.18 | 0.79 |
| | | CO | 0.25 | 1.08 |
| | | VOC | 0.02 | 0.07 |
| | | PM | 0.02 | 0.10 |
| | | $PM_{10}$ | 0.02 | 0.10 |
| | | $PM_{2.5}$ | 0.02 | 0.10 |
| | | $SO_2$ | <0.01 | 0.01 |
| | | Formaldehyde | <0.01 | <0.01 |
| | | HAPS | 0.01 | 0.03 |
| CT-1 | Wet Surface Air Condenser | PM | 0.27 | 1.20 |
| | | $PM_{10}$ | 0.27 | 1.20 |
| | | $PM_{2.5}$ | 0.27 | 1.20 |
| FL-1 | Plant Flare | $NO_x$ | 3.51 | 11.07 |
| | | CO | 7.00 | 22.55 |
| | | VOC | 9.62 | 17.22 |
| | | $SO_2$ | <0.01 | 0.20 |
| | | $H_2S$ | <0.01 | <0.01 |
| | | Formaldehyde | <0.01 | <0.01 |
| | | HAPS | 2.99 | 1.95 |
| FL-2 | Plant Flare - Nonassisted | $NO_x$ | 23.41 | 10.45 |
| | | CO | 46.76 | 21.46 |
| | | VOC | 2.35 | 1.03 |
| | | $SO_2$ | 24.64 | 10.79 |
| | | $H_2S$ | 0.26 | 0.11 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | HAPS | 2.32 | 1.02 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| RTO-1 | Regenerative Thermal Oxidizer | $NO_x$ | 0.94 | 4.11 |
| | | CO | 1.05 | 4.60 |
| | | VOC | 1.24 | 5.44 |
| | | PM | 0.07 | 0.31 |
| | | $PM_{10}$ | 0.07 | 0.31 |
| | | $PM_{2.5}$ | 0.07 | 0.31 |
| | | $SO_2$ | 24.64 | 107.94 |
| | | $H_2S$ | 0.13 | 0.57 |
| VCU-2 | Vapor Combustion Unit | $NO_x$ | 0.45 | 0.73 |
| | | CO | 0.18 | 0.80 |
| | | VOC | 3.39 | 5.25 |
| | | PM | 0.06 | 0.10 |
| | | $PM_{10}$ | 0.06 | 0.10 |
| | | $PM_{2.5}$ | 0.06 | 0.10 |
| | | $SO_2$ | <0.01 | <0.01 |
| | | $H_2S$ | <0.01 | <0.01 |
| L-1 | Slop Oil Loading | VOC | 0.12 | <0.01 |
| L-2 | Condensate Loading Fugitives | VOC | 0.65 | 0.80 |
| L-4 | Slop Water Loading | VOC | 1.45 | 0.46 |
| L-5 | Material Unloading Fugitives | VOC | 1.64 | 7.19 |
| FUG-1 (5) | Train 1 Fugitive Emissions | VOC | 2.67 | 11.69 |
| | | $H_2S$ | <0.01 | <0.01 |

Emission Sources - Maximum Allowable Emission Rates

| Train 2 | | | | |
|---|---|---|---|---|
| ENG-201 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.02 | 8.82 |
| | | VOC | 1.97 | 8.64 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.08 |
| ENG-202 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.02 | 8.82 |
| | | VOC | 1.97 | 8.64 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.08 |
| ENG-203 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.02 | 8.82 |
| | | VOC | 1.97 | 8.64 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.08 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| ENG-204 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.02 | 8.82 |
| | | VOC | 1.97 | 8.64 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.08 |
| ENG-205 | Caterpillar 3616-4735 BHP | $NO_x$ | 5.22 | 22.86 |
| | | CO | 2.02 | 8.82 |
| | | VOC | 1.97 | 8.64 |
| | | PM | 0.32 | 1.40 |
| | | $PM_{10}$ | 0.32 | 1.40 |
| | | $PM_{2.5}$ | 0.32 | 1.40 |
| | | $SO_2$ | 0.02 | 0.08 |
| H-200 | Mole Sieve Regen. Heater | $NO_x$ | 1.44 | 6.31 |
| | | CO | 3.29 | 14.43 |
| | | VOC | 0.22 | 0.94 |
| | | PM | 0.30 | 1.31 |
| | | $PM_{10}$ | 0.30 | 1.31 |
| | | $PM_{2.5}$ | 0.30 | 1.31 |
| | | $SO_2$ | 0.02 | 0.10 |
| H-201 | Hot Oil Heater | $NO_x$ | 3.56 | 15.61 |
| | | CO | 8.15 | 35.71 |
| | | VOC | 0.53 | 2.34 |
| | | PM | 0.74 | 3.23 |
| | | $PM_{10}$ | 0.74 | 3.23 |
| | | $PM_{2.5}$ | 0.74 | 3.23 |
| | | $SO_2$ | 0.06 | 0.26 |
| H-202 | Stabilization Heater | $NO_x$ | 0.72 | 3.15 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | CO | 1.65 | 7.21 |
| | | VOC | 0.11 | 0.47 |
| | | PM | 0.15 | 0.65 |
| | | $PM_{10}$ | 0.15 | 0.65 |
| | | $PM_{2.5}$ | 0.15 | 0.65 |
| | | $SO_2$ | 0.01 | 0.05 |
| H-203 | Glycol Regen. Heater | $NO_x$ | 0.11 | 0.47 |
| | | CO | 0.25 | 1.08 |
| | | VOC | 0.02 | 0.07 |
| | | PM | 0.02 | 0.10 |
| | | $PM_{10}$ | 0.02 | 0.10 |
| | | $PM_{2.5}$ | 0.02 | 0.10 |
| | | $SO_2$ | <0.01 | 0.01 |
| H-204 | Trim Reboiler Heater | $NO_x$ | 0.94 | 4.10 |
| | | CO | 2.14 | 9.38 |
| | | VOC | 0.14 | 0.61 |
| | | PM | 0.19 | 0.85 |
| | | $PM_{10}$ | 0.19 | 0.85 |
| | | $PM_{2.5}$ | 0.19 | 0.85 |
| | | $SO_2$ | 0.02 | 0.07 |
| RTO-200 | Regenerative Thermal Oxidizer | $NO_x$ | 0.90 | 3.95 |
| | | CO | 0.29 | 1.25 |
| | | VOC | 0.68 | 2.98 |
| | | PM | 0.07 | 0.29 |
| | | $PM_{10}$ | 0.07 | 0.29 |
| | | $PM_{2.5}$ | 0.07 | 0.29 |
| | | $SO_2$ | 24.52 | 107.39 |
| | | $H_2S$ | 0.13 | 0.57 |
| VCU-200 | Vapor Combustion Unit | $NO_x$ | 0.33 | 0.58 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | CO | 0.04 | 0.07 |
| | | VOC | 2.08 | 3.62 |
| | | PM | 0.05 | 0.08 |
| | | $PM_{10}$ | 0.05 | 0.08 |
| | | $PM_{2.5}$ | 0.05 | 0.08 |
| | | $SO_2$ | <0.01 | 0.01 |
| | | $H_2S$ | <0.01 | <0.01 |
| L-200 | Condensate Truck Loading Fugitives | VOC | 1.68 | 0.14 |
| L-201 | Used Lube Oil Truck Loading | VOC | 0.21 | <0.01 |
| L-202 | Wastewater Truck Loading | VOC | 0.56 | 0.01 |
| FL-200 | Plant Flare | $NO_x$ | 0.89 | 0.90 |
| | | CO | 1.78 | 1.81 |
| | | VOC | 4.16 | 1.83 |
| | | $SO_2$ | <0.01 | <0.01 |
| | | $H_2S$ | <0.01 | <0.01 |
| FL-300 | Plant Flare - Nonassisted | $NO_x$ | 8.20 | 34.26 |
| | | CO | 16.36 | 68.38 |
| | | VOC | 1.53 | 1.59 |
| | | $SO_2$ | 24.51 | 10.74 |
| | | $H_2S$ | 0.26 | 0.11 |
| CT-200 | Wet Surface Air Condenser | PM | 0.10 | 0.42 |
| | | $PM_{10}$ | 0.10 | 0.42 |
| | | $PM_{2.5}$ | 0.10 | 0.42 |
| TK-200 | Bulk Lube Oil Tank | VOC | <0.01 | <0.01 |
| TK-201 | Engine Lube Oil Tank | VOC | <0.01 | <0.01 |
| TK-202 | Used Lube Oil Tank | VOC | <0.01 | <0.01 |
| TK-203 | Water/Antifreeze Tank | VOC | <0.01 | <0.01 |
| TK-205 | Glycol Tank | VOC | <0.01 | 0.09 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| TK-DIESEL2 | Diesel Fuel Storage Tank | VOC | <0.01 | <0.01 |
| TK-GAS2 | Gasoline Fuel Storage Tank | VOC | 4.55 | 0.07 |
| TK-211 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| TK-212 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| TK-213 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| TK-214 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| TK-215 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| TK-216 | Compressor Oil Day Tank | VOC | <0.01 | <0.01 |
| FUG-2 (5) | Train 2 Fugitive Emissions | VOC | 2.68 | 11.76 |
| | | $H_2S$ | <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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
$NO_x$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
$H_2S$ - hydrogen sulfide
PM - total particulate matter, suspended in the atmosphere, including $PM_{10}$ and $PM_{2.5}$, as represented
$PM_{10}$ - 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
CO - carbon monoxide
HAPS - hazardous air pollutants
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: April 9, 2019