

Emission Sources - Maximum Allowable Emission Rates

Permit Number 20057

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) |
| DMTA OPERATION AND HMP OPERATION | | | | |
| K-1798 | Flare Stack | PM | < 0.01 | 0.01 |
| | | PM ₁₀ | < 0.01 | 0.01 |
| | | PM _{2.5} | < 0.01 | 0.01 |
| | | VOC | < 0.01 | < 0.01 |
| | | NO _x | 0.03 | 0.15 |
| | | SO ₂ | < 0.01 | < 0.01 |
| | | CO | 0.07 | 0.30 |
| WB-1769 | J-1765 WW Tank Scrubber | VOC | 0.49 | 0.62 |
| | | H ₂ S | <0.01 | <0.01 |
| K-502-C | Tank WB-502-C Carbon Canister | VOC | < 0.01 | < 0.01 |
| WK-510A-A | Tank WB-510-A Carbon Canister | VOC | < 0.01 | < 0.01 |
| PK-1901 | Cooling Tower | VOC (5) | 0.59 | 2.58 |
| | | PM | 0.09 | 0.41 |
| | | PM ₁₀ | 0.07 | 0.30 |
| | | PM _{2.5} | < 0.01 | < 0.01 |
| LOADTT | Tank to Truck Loading | VOC | 0.01 | < 0.01 |
| D-1868 | Tanks J-1868 and J-1869 Scrubber | HCl | 0.04 | < 0.01 |
| K-1970 | DMTA Generator | VOC | 0.41 | 0.01 |
| | | PM | 0.44 | 0.01 |
| | | PM ₁₀ | 0.44 | 0.01 |
| | | PM _{2.5} | 0.44 | 0.01 |
| | | CO | 3.49 | 0.05 |
| | | SO ₂ | 0.26 | 0.01 |
| | | NO _x | 15.22 | 0.20 |

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| | | | | |
|---------|-------------------------------------|-------------------------------|-------|-------|
| K-1790 | Vent Stack (99.9% DRE- PK-1786R1) | PM | 2.39 | 10.49 |
| | | PM ₁₀ | 2.39 | 10.49 |
| | | PM _{2.5} | 2.28 | 9.96 |
| | | VOC | 0.28 | 1.11 |
| | | NO _x | 2.67 | 11.72 |
| | | SO ₂ | 0.31 | 1.35 |
| | | CO | 0.76 | 3.32 |
| | | Cl ₂ | 0.13 | 0.56 |
| | | HCl | 0.12 | 0.50 |
| | | H ₂ S | 0.02 | 0.07 |
| K-1790 | Vent Stack (99.5% DRE- PK-1786) (6) | PM | 0.03 | 0.14 |
| | | PM ₁₀ | 0.03 | 0.14 |
| | | PM _{2.5} | 0.03 | 0.14 |
| | | VOC | 0.97 | 3.62 |
| | | NO _x | 2.37 | 10.40 |
| | | SO ₂ | 0.23 | 1.02 |
| | | CO | 0.16 | 0.71 |
| | | Cl ₂ | 0.27 | 1.20 |
| | | HCl | 0.12 | 0.50 |
| | | H ₂ S | 0.01 | 0.26 |
| S582F-1 | Storage Tank Farm Fugitives (5) | VOC | 0.06 | 0.26 |
| | | HCl | 0.01 | 0.05 |
| | | Formaldehyde | 0.01 | 0.03 |
| | | MeOH | 0.01 | 0.03 |
| S582F-2 | Process Unit Fugitives (5) | VOC | 0.93 | 4.08 |
| | | H ₂ S | 0.05 | 0.22 |
| | | Cl ₂ | 0.06 | 0.28 |
| | | H ₂ O ₂ | <0.01 | 0.01 |
| | | HCl | 0.09 | 0.37 |
| | | Formaldehyde | 0.02 | 0.07 |
| | | MeOH | 0.09 | 0.39 |

| | | | | |
|---------|--------------------------|--------------|--------|--------|
| S582F-3 | Wastewater Fugitives (5) | VOC | < 0.01 | 0.01 |
| | | Formaldehyde | <0.01 | < 0.01 |

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| | | | | |
|---|--|-----------------|-------|-------|
| | | MeOH | <0.01 | <0.01 |
| PACKOUT OPERATIONS | | | | |
| K-1891 | Tank B-246-A, and B-253-A Carbon Drum | VOC | 0.08 | 0.01 |
| B-256 | Storage Tank | VOC | 4.10 | 0.10 |
| B-257 | Storage Tank | VOC | 4.10 | 0.10 |
| B-258 | Storage Tank | VOC | 4.10 | 0.10 |
| B-259 | Storage Tank | VOC | 4.10 | 0.10 |
| B-260 | Storage Tank | VOC | 0.27 | 0.02 |
| K-1890 | Tank J-1874, 1875, and 1879 Carbon Drum | VOC | 0.01 | <0.01 |
| K-1878 | Tank J-1878 Carbon Drum | VOC | 0.01 | <0.01 |
| K-1892 | Tank J-1880 Carbon Drum | VOC | 0.04 | <0.01 |
| K-1881 | Tank J-1881 Carbon Drum | VOC | 0.06 | <0.01 |
| K-1882 | Tank J-1882 Carbon Drum | VOC | 0.06 | <0.01 |
| J-218 | Storage Tank | VOC | 5.12 | 0.53 |
| J-219 | Storage Tank | VOC | 5.12 | 0.26 |
| J-220 | Storage Tank | VOC | 4.92 | 0.23 |
| B-246-B | Storage Tank | VOC | 4.10 | 0.03 |
| E-1800TKF | PO Piping Fugitives (5) | VOC | 0.06 | 0.31 |
| E-1800LF | PO Area Loading | VOC | 1.70 | 0.02 |
| PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSION RATE LIMITS | | | | |
| MSS-DMTA | Vacuum Truck | VOC | | |
| | Filter Clearing (DMTA and HMP) | | | |
| | Surface Coating (Hand painting/Aerosol) | | | |
| | Filter Purging | | | |
| | Tank Clearing | | | |
| | Small and Large Equipment Purging (DMTA and HMP) | | | |
| | Maintenance, Start-Up and Shut-Down | VOC | 38.88 | 2.43 |
| MSS-DMTA | Small and Large Equipment Purging (DMTA) | Cl ₂ | | |
| | Filter Clearing (DMTA) | | | |
| | Maintenance, Start-Up and Shut-Down | Cl ₂ | 4.50 | 0.10 |
| MSS-DMTA | Small and Large Equipment Purging | HCl | | |

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|-------------|---|------------------|-------|-------|
| | (HMP) | | | |
| | Filter Clearing (HMP) | | | |
| | Maintenance, Start-Up and Shut-Down | HCl | 1.87 | 0.04 |
| MSS-DMTA | Small and Large Equipment Purging (DMTA) | H ₂ S | | |
| | Maintenance, Start-Up and Shut-Down | H ₂ S | 0.01 | 0.01 |
| MSS-DMTA | Surface Coating (Aerosol) | PM | | |
| | Maintenance, Start-Up and Shut-Down | PM | 0.06 | 0.01 |
| MSS-WB-1769 | Maintenance, Start-Up and Shut-Down | H ₂ S | <0.01 | <0.01 |
| MSS-PO | Sludge Management | VOC | | |
| | Small Equipment | | | |
| | Process Vessel | | | |
| | Tanks | | | |
| | Vacuum Trucks | | | |
| | Maintenance, Start-Up, and Shut-Down for the Pack-Out Plant | VOC | 57.91 | 0.05 |

- (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
 - SO₂ - sulfur dioxide
 - 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
 - CO - carbon monoxide
 - Cl₂ - chlorine
 - HCl - hydrochloric acid mist
 - H₂S - hydrogen sulfide
 - MeOH - methyl alcohol
 - H₂O₂ - hydrogen peroxide
- (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.
- (6) Emission rates prior to completion of thermal oxidizer upgrades.

Date: December 30, 2020