Emission Sources - Maximum Allowable Emission Rates

Permit Number 53610

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) |
| SCRUB1POLY | Solution Plant Scrubber | VOC | 23.62 | 6.57 |
| | | $SO_2$ | 0.01 | 0.01 |
| | | PM | 0.02 | 0.01 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| | | Acetone | 0.01 | 0.01 |
| | | HCl | 1.66 | 0.13 |
| | | $H_2SO_4$ | <0.01 | <0.01 |
| SCRUB1POLY-MSS | Solution Plant Scrubber Planned MSS Activities | VOC | 0.69 | 1.70 |
| SCRUB1EMUL | Emulsion Plant Scrubber Normal Operations | VOC | 12.19 | 8.66 |
| | | PM | 0.05 | 0.04 |
| | | $PM_{10}$ | 0.02 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| | | HCl | 0.03 | 0.01 |
| | | NH4Cl | 0.01 | 0.13 |
| | | Acetone | 0.03 | 0.04 |
| | | $H_2SO_4$ | <0.01 | <0.01 |
| SCRUB1 EMUL-MSS | Emulsion Plant Scrubber Planned MSS Activities | VOC | 0.40 | 0.17 |
| SCRUB2EMUL | Sodium Hypochlorite Scrubber Normal Operations | NaClO | 0.01 | 0.01 |
| SCRUB2EMUL-MSS | Sodium Hypochlorite Scrubber Planned MSS Activities | VOC | 0.01 | 0.02 |
| SCRUB-FORM | Formalin, 37 % Tank Scrubber | VOC | <0.01 | <0.01 |
| T-3503 | Diethylenetriamine (DETA) | VOC | 0.01 | 0.02 |

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| | | | | |
|---|---|---|---|---|
| | Tank | | | |
| T-3504 | EPI Storage Tank | VOC | 0.01 | 0.01 |
| T-3505 | EPI Storage Tank | VOC | 0.01 | 0.01 |
| T-3514 | COAG 57D Storage Tank | VOC | 0.01 | 0.01 |
| T-3515 | COAG 123 Product Tank | VOC | 0.01 | 0.01 |
| T-3516 | COAG 113 Product Tank | VOC | 0.05 | <0.01 |
| T-3517 | COAG 105 Product Tank | VOC | 0.01 | 0.01 |
| T-3520 | RX In-Process Vessel/Storage Tank | VOC | 0.01 | 0.01 |
| T-3521 | OCA-245H Storage Tank | VOC | <0.01 | <0.01 |
| T-3522 | DCA-247 or DCA-268 Storage Tank | VOC | 0.02 | <0.01 |
| T-3523 | Solution Plant Scale Tank | VOC | 3.60 | 0.26 |
| T-3538 | Process Washwater Storage Tank | VOC | 0.01 | 0.01 |
| T-3539 | Acrylic Acid Storage Tank | VOC | 0.84 | 0.07 |
| T-3561 | Caustic Storage Tank | VOC | 0.01 | 0.01 |
| T-3563 | Spent IPA | VOC | 0.24 | 0.01 |
| | | Acetone | 0.08 | 0.37 |
| T-3567 | Premium Solvent Storage Tank | VOC | 0.66 | 0.01 |
| T-3568 | Duo O Storage Tank | VOC | 0.02 | 0.01 |
| T-3569 | Tall Oil Storage Tank | VOC | 0.01 | 0.01 |
| T-3571 | Methacrylic Acid Storage Tank | VOC | 0.49 | 0.03 |
| T-3572 | DDSA Storage Tank | VOC | 0.01 | <0.01 |
| T-3573 | Nonyl Phenol Storage Tank | VOC | 0.01 | 0.01 |
| T-3574 | Process Washwater Storage Tank | VOC | 0.53 | 0.02 |
| T-3575 | Morpholine Storage Tank | VOC | 2.54 | 0.05 |
| T-3576 | CI-11C Product Tank | VOC | 0.03 | 0.01 |
| T-3577 | CI-46C Product Tank | VOC | 0.04 | 0.01 |
| T-3578 | MD-115A Product Tank | VOC | 0.94 | 0.03 |

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| | | | | |
|---|---|---|---|---|
| T-3582 | OCA245C Storage Tank | VOC | <0.01 | <0.01 |
| T-3592 | Solution In-Process Vessel/Tank | VOC | 0.01 | 0.01 |
| T-3593 | COAG 111 Storage Tank | VOC | 0.01 | <0.01 |
| T-3595 | COAG 139 Storage Tank | VOC | 0.01 | 0.01 |
| T-3596 | COAG 248 Storage Tank | VOC | 0.25 | 0.05 |
| T-35101 | Spent IPA | VOC | 0.03 | 0.01 |
| | | Acetone | 0.01 | 0.05 |
| T-35106 | Caustic Storage Tank | VOC | 0.01 | 0.01 |
| T-35107 | COAG 111 Storage Tank 2 | VOC | 0.01 | <0.01 |
| T-35109 | AGE Storage Tank | VOC | 0.25 | <0.01 |
| T-35120 | Acrylamide 53 % Tank | VOC | 0.01 | 0.01 |
| T-35121 | AETAC Storage Tank | VOC | 0.01 | 0.01 |
| T-35303 | Emulsion Wastewater Holding Tank | VOC | 0.01 | 0.01 |
| T-35124 | Vista Oil Storage Tank | VOC | 0.09 | 0.01 |
| T-35129 | Vista Oil Storage Tank | VOC | 0.09 | 0.01 |
| T-35134 | NP COAG 102 Storage Tank | VOC | 0.01 | 0.01 |
| T-35136 | COAG 102 Storage Tank | VOC | 1.81 | 0.12 |
| T-35155 | Solution In-Process Vessel/Tank | VOC | 0.01 | 0.01 |
| T-35162 | PEGAE Storage Tank | VOC | 1.20 | 0.03 |
| T-35221 | Allyl Alcohol Storage Tank | VOC | 0.11 | 0.01 |
| T-35300 | Formalin Feed Tank | VOC | 0.01 | 0.01 |
| T-35301 | Monoethanolamine Storage Tank | VOC | 0.19 | 0.01 |
| T-35311 | AGEFLEX MDMDAC Storage Tank | VOC | <0.01 | <0.01 |
| T-35312 | VM-239 Storage Tank | VOC | 0.06 | <0.01 |
| T-35400 | CI-166 Storage Tank | VOC | 0.01 | 0.01 |
| T-35401 | Sodium Hypochlorite (12.5%) Tank | NaClO | 0.01 | 0.01 |
| Carb-Can | Allyl Glycidyl Ether (AGE) | VOC | 3.06 | 0.02 |

Emission Sources - Maximum Allowable Emission Rates

| | CAS | | | |
|---|---|---|---|---|
| PK-3536 | Sodium Bisulfite Tank Scrubber | $SO_2$ | 0.03 | 0.15 |
| DIESEL 1 | Fuel Tank for Solution Plant | VOC | 0.10 | 0.10 |
| DIESEL 2 | Fuel Tank for Emulsion Plant | VOC | 0.10 | 0.10 |
| DIESEL 3 | Fuel Tank for Fire Pump | VOC | 0.10 | 0.10 |
| SP-FUG | Solution Plant 1 Fugitives (5) (from Components) | VOC | 1.37 | 4.30 |
| | | Acetone | 0.01 | 0.01 |
| TOTEB-SP | Solution Plant Fugitives (5) | VOC | 0.01 | 0.01 |
| EP-FUG | Emulsion Plant Fugitives (5) (from Components) | VOC | 0.18 | 0.36 |
| | | Acetone | 0.01 | 0.01 |
| | | NaOH | <0.01 | <0.01 |
| TOTEB-EP | Emulsion Plant Fugitives (5) | VOC | 0.01 | 0.01 |
| HOT-BOX | Emulsion Plant Bldg. Fugitives (5) | VOC | 0.04 | 0.01 |
| HOT-RM | Fugitive Emissions (5) | VOC | 0.03 | 0.01 |
| SP-LOAD | Solution Plant Loading to Drums/Totes and Trucks | VOC | 18.15 | 1.57 |
| | | Acetone | 0.01 | 0.01 |
| | | HCl | 0.01 | 0.01 |
| EP-LOAD-TR | Emulsion Plant Loading to Trucks | VOC | 0.81 | 0.01 |
| | | NH4Cl | 0.01 | 0.01 |
| | | HCl | 0.01 | 0.01 |
| | | NaOH | <0.01 | <0.01 |
| SCREEN-FUG | Product Screening Fugitives (5) | VOC | 0.04 | 0.04 |
| COOL | Cooling Tower | PM | 0.32 | 1.41 |
| | | $PM_{10}$ | 0.32 | 1.41 |
| | | $PM_{2.5}$ | 0.32 | 1.41 |
| | | $Cl_2$ | 0.10 | 0.10 |
| | | Br2 | 0.10 | 0.10 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| BOIL-1 | Boiler 1 (South) | $NO_x$ | 0.42 | 1.83 |
| | | CO | 0.35 | 1.53 |
| | | VOC | 0.02 | 0.10 |
| | | $SO_2$ | 0.06 | 0.27 |
| | | PM | 0.03 | 0.14 |
| | | $PM_{10}$ | 0.03 | 0.14 |
| | | $PM_{2.5}$ | 0.03 | 0.14 |
| BOIL-2 | Boiler 2 (North) | $NO_x$ | 0.42 | 1.83 |
| | | CO | 0.35 | 1.53 |
| | | VOC | 0.02 | 0.10 |
| | | $SO_2$ | 0.06 | 0.27 |
| | | PM | 0.03 | 0.14 |
| | | $PM_{10}$ | 0.03 | 0.14 |
| | | $PM_{2.5}$ | 0.03 | 0.14 |
| HEAT-1 | Hot Oil Heater | $NO_x$ | 0.42 | 1.85 |
| | | CO | 0.36 | 1.56 |
| | | VOC | 0.02 | 0.10 |
| | | $SO_2$ | 0.06 | 0.28 |
| | | PM | 0.03 | 0.14 |
| | | $PM_{10}$ | 0.03 | 0.14 |
| | | $PM_{2.5}$ | 0.03 | 0.14 |
| SP-EMGEN | Solution Plant Emergency Generator (6) | $NO_x$ | 5.25 | 0.01 |
| | | CO | 1.40 | 0.01 |
| | | VOC | 0.59 | 0.01 |
| | | $SO_2$ | 0.07 | 0.01 |
| | | PM | 0.11 | 0.01 |
| | | $PM_{10}$ | 0.11 | 0.01 |
| | | $PM_{2.5}$ | 0.11 | 0.01 |
| EP-EMGEN | Emulsion Plant Emergency Generator (6) | $NO_x$ | 5.25 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | CO | 1.40 | 0.01 |
| | | VOC | 0.59 | 0.01 |
| | | $SO_2$ | 0.07 | 0.01 |
| | | PM | 0.11 | 0.01 |
| | | $PM_{10}$ | 0.11 | 0.01 |
| | | $PM_{2.5}$ | 0.11 | 0.01 |
| FRPUMP | Fire Pump (7) | $NO_x$ | 5.26 | 0.07 |
| | | CO | 1.40 | 0.02 |
| | | VOC | 0.59 | 0.01 |
| | | $SO_2$ | 0.07 | <0.01 |
| | | PM | 0.11 | <0.01 |
| | | $PM_{10}$ | 0.11 | <0.01 |
| | | $PM_{2.5}$ | 0.11 | <0.01 |
| OWSEP | Oil-Water Separator | VOC | 0.63 | 0.53 |
| MSS - AWA | Arc Welding - MSS Activities | PM | 1.19 | 0.16 |
| | | $PM_{10}$ | 1.19 | 0.16 |
| | | $PM_{2.5}$ | 1.19 | 0.16 |
| MSS - PVI | Pump, Valves, and Instruments - Planned MSS Activities | VOC | 0.06 | 0.01 |
| MSS - PRV | Pressure Relief Valves – Planned MSS Activities | VOC | 0.07 | 0.01 |
| MSS - TANK | Tank Washwater - MSS Activities | VOC | 0.15 | 0.01 |
| MSS- VAC | Vacuum Truck - MSS Activities | VOC | 0.01 | 0.01 |
| MSS-T3598 | Washout Water Storage Tank | VOC | 2.90 | 0.01 |
| MSS-T35303 | Washout Water Storage Tank | VOC | 0.69 | 0.01 |
| RTO1SPN | Solution Plant 2 Regenerative Thermal Oxidizer | $NO_x$ | 0.07 | 0.05 |
| | | CO | 0.03 | 0.07 |
| | | VOC | 0.20 | 0.02 |
| | | $SO_2$ | <0.01 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | PM | 0.02 | 0.01 |
| | | $PM_{10}$ | 0.02 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| | | Acetone | <0.01 | <0.01 |
| | | $H_2SO_4$ | <0.01 | <0.01 |
| | | HCl | 0.02 | <0.01 |
| SPN-FUG | Solution Plant 2 Fugitive Piping Emissions (5) | VOC | 0.84 | 3.68 |
| | | $H_2SO_4$ | 0.01 | 0.05 |
| | | NaOH | 0.03 | 0.12 |
| | | HCl | 0.01 | 0.03 |
| T-35391 | Acrylic Acid Storage Tank | VOC | 0.01 | 0.04 |
| AA-FUG | Acrylic Acid Piping Fugitives (5) | VOC | 0.14 | 0.61 |

(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
CO - carbon monoxide
$SO_2$ - sulfur dioxide
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
HCl - hydrochloric acid
NaClO - sodium hypochlorite
NaOH - sodium hydroxide
$NH_4Cl$ - ammonium chloride
$H_2SO_4$ - sulfuric acid
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(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) Each emergency generator is limited to a maximum of 4 hours of testing operations in a rolling 12-month period.
(7) The fire pump is limited to a maximum of 26 hours of testing operations in a rolling 12-month period.

Date: March 21, 2022