Emission Sources - Maximum Allowable Emission Rates

Permit Number 2035A

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) |
| FT16001300 | Phosphoric Acid Tank | $H_3PO_4$ | 0.01 | 0.01 |
| FT16002500 | BPA Additive Solution Tank | VOC | 0.02 | 0.01 |
| FT16021100 | TBP Tank | VOC | 0.02 | 0.01 |
| FS16056800 | HCl Tank Scrubber | HCl | 0.01 | 0.01 |
| FT16056100 | Hydrochloric Acid Tank | HCl | 0.01 | 0.04 |
| FT16056900 | H3PO4 Make-up Tank | $H_3PO_4$ | 0.01 | 0.01 |
| FT16409500 | Line 6 Extruder Melt Pot | VOC | 0.01 | 0.01 |
| FT41070400 | Sulfuric Acid Tank | $H_2SO_4$ | 0.02 | 0.01 |
| FI16452900 | Incinerator/Scrubber Stack | CO | 2.70 | 11.83 |
| | | HCl | 0.36 | 1.56 |
| | | NOx | 1.25 | 5.48 |
| | | VOC | 0.05 | 0.23 |
| | | SO2 | <0.01 | <0.01 |
| | | Acetone | 0.01 | 0.06 |
| | | Methylene Chloride | 0.03 | 0.12 |
| FF16027000 | Decomposition System Flare | CO | 6.06 | 26.55 |
| | | HCl | 0.12 | 0.51 |
| | | $NO_x$ | 0.16 | 0.72 |
| | | VOC | 0.01 | 0.01 |
| | | SO2 | <0.01 | <0.01 |
| | | Methylene Chloride | <0.01 | 0.01 |

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| | | | | |
|---|---|---|---|---|
| FF41080100 | BPA Flare | CO | 2.53 | 2.24 |
| | | NOx | 0.3 | 0.29 |
| | | VOC | 0.01 | 0.01 |
| | | SO2 | <0.01 | <0.01 |
| | | Acetone | 0.01 | 0.01 |
| FCMAKCAS00 | Carbon Adsorption System | VOC | 0.17 | 0.12 |
| | | Methylene Chloride | 0.13 | 0.09 |
| DIEOVEN 1-4 | Die Oven Nos. 1, 2, 3, and 4 | CO | 0.05 (6) | 0.43 (7) |
| | | NOx | 0.03 (6) | 0.23 (7) |
| | | SOx | 0.01 (6) | 0.03 (7) |
| | | VOC | 0.02 (6) | 0.15 (7) |
| | | PM | 0.01 (6) | 0.11 (7) |
| | | $PM_{10}$ | 0.01 (6) | 0.11 (7) |
| | | $PM_{2.5}$ | 0.01 (6) | 0.11 (7) |
| FV16249100 | Packaging Station Baghouse 1 | PM | 0.50 | 2.00 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16280300 | Packaging Station Baghouse 2 | PM | 0.50 | 1.50 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16298000 | Packaging Station Baghouse 3 | PM | 0.36 | 1.08 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| FV16213930 | North Bulk Loading Baghouse | PM | 0.58 | 2.54 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16250100 | South Bulk Loading Baghouse | PM | 0.50 | 1.50 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16258800 | All Polycarbonate Silo Vent | PM | 1.57 | 2.31 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| FV40541112 | BPA Silo/Truck Loading Vent | PM | 0.01 | 0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| FV40543200 | BPA Railcar Loading Vent | PM | 0.01 | 0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| FV16158700 | Lines 1, 2, and 3 Baghouse | PM | 0.62 | 2.70 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV163434RO | Line 4 Baghouse | PM | 0.20 | 0.88 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16420800 | Lines 5 and 6 Baghouse | PM | 0.60 | 2.63 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FV16142700 | Line 3 Additive Area Filter | PM | 0.26 | 1.13 |
| | | $PM_{10}$ | 0.01 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| FUGITIVES | Fugitives (5) | Acetone | 0.53 | 2.31 |
| | | $Cl_2$ | 0.02 | 0.09 |
| | | $COCl_2$ | 0.01 | 0.05 |
| | | VOC | 2.84 | 12.41 |
| | | Methylene Chloride | 1.56 | 6.84 |
| | | HCl | 0.01 | 0.55 |
| | | $H_3PO_4$ | 0.02 | 0.09 |
| FCMAKCASSOO<br>MAK-CARBOX | Carbon Box Emissions | Monochlorobenzene | 0.07 | 0.04 |
| | | Total VOC | 0.07 | 0.04 |
| | | Methylene Chloride | 0.21 | 0.11 |
| | | PM | 0.01 | 0.01 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| PCS-MSSNH3<br>PCS-NH3 | Ammonia Reaction Test | Ammonia | 0.04 | 0.01 |
| PCS-MSSATM<br>MAK-DEGR | Degreaser | Petroleum Distillate | 0.01 | 0.01 |
| PCS-MSSATM<br>PCS-BAGCLR | Baghouse Clearing | PM | 0.39 | 0.01 |
| | | $PM_{10}$ | 0.18 | 0.01 |
| | | $PM_{2.5}$ | 0.03 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| PCS-MSSATM<br>PCS-FRCTK | Frac Tanks | Phenol | 0.01 | 0.01 |
| | | Monochlorobenzene | 0.33 | 0.11 |
| | | Total VOC | 0.34 | 0.12 |
| | | Methylene Chloride | 0.33 | 0.11 |
| | | Acetone | 1.99 | 0.09 |
| | | HCl | 0.01 | 0.01 |
| PCS-MSSATM<br>PCS-VACTR | Vacuum Trucks | Phenol | 0.01 | 0.01 |
| | | Monochlorobenzene | 0.32 | 0.01 |
| | | Total VOC | 0.33 | 0.02 |
| | | Methylene Chloride | 0.33 | 0.01 |
| | | Acetone | 0.93 | 0.01 |
| PCS-MSSATM<br>PCS-INT | Instrument Clearing | Total VOC | 0.27 | 0.01 |
| | | $Cl_2$ | 0.01 | 0.01 |
| PCS-MSSATM<br>BPA-TOT | BPA Tote Loading | Methyl Isobutyl Ketone | 0.35 | 0.01 |
| | | Total VOC | 0.35 | 0.01 |
| PCS-MSSATM<br>BPA-REAC | BPA Reactor Catalyst Loading | Phenol | 0.56 | 0.01 |
| PCS-MSSATM<br>PCS-TKTR | Tank Trucks | Phenol | 0.01 | 0.01 |
| | | Methyl Isobutyl Ketone | 1.50 | 0.13 |
| | | Monochlorobenzene | 0.07 | 0.01 |
| | | Total VOC | 1.58 | 0.13 |
| | | Methylene Chloride | 1.54 | 0.04 |
| PCS-MSSATM<br>PCS-UNCONT | Uncontrolled Equipment Clearing | Phenol | 13.94 | 0.35 |
| | | Bisphenol A | 0.16 | 0.01 |
| | | Methyl Isobutyl Ketone | 7.97 | 0.04 |
| | | Diacetone Alcohol | 0.96 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | Mercaptopropionic Acid | 0.02 | 0.01 |
| | | Monochlorobenzene | 20.69 | 1.14 |
| | | Tert-butylphenol | 1.28 | 0.01 |
| | | Ethylene Glycol | 0.03 | 0.01 |
| | | Ethyl Chloride | 0.06 | 0.01 |
| | | EPP | 0.01 | 0.01 |
| | | Total VOC | 45.06 | 1.60 |
| | | HCl | 0.56 | 0.01 |
| | | Acetone | 6.14 | 0.02 |
| | | Ammonia | 1.00 | 0.01 |
| | | Methylene Chloride | 20.69 | 1.34 |
| | | High boiling diphenyl carbonyl (DPC) | 0.01 | 0.01 |
| FF16027000<br>MAK-COPRG | CO Purging | CO | 18.24 | 0.44 |
| | | $NO_x$ | 0.25 | 0.01 |
| FF41080100<br>BPA-FLR | BPA Unit Flaring | Phenol | 0.01 | 0.01 |
| | | Methyl Isobutyl Ketone | 0.01 | 0.01 |
| | | VOC-U | 0.15 | 0.08 |
| | | Total VOC | 0.17 | 0.08 |
| | | Acetone | 0.01 | 0.01 |
| | | $NO_x$ | 0.85 | 0.43 |
| | | CO | 7.29 | 3.65 |
| PCS-MSSCNT<br>BPA-REAC | BPA Reactor Catalyst Loading | Phenol | 0.21 | 0.01 |
| PCS-MSSCNT<br>PCS-CONT (8) | Controlled Equipment Clearing | Phenol | 1.08 | 0.01 |
| | | Bisphenol A | 3.17 | 0.22 |
| | | Methyl Isobutyl Ketone | 0.48 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | Diacetone Alcohol (4-Hydroxy-4-methyl-2-pentanone) | 0.06 | 0.01 |
| | | Mercaptopropionic Acid | 0.01 | 0.01 |
| | | Monochlorobenzene | 2.31 | 0.02 |
| | | tert-Butylphenol | 0.01 | 0.01 |
| | | Ethyl Chloride | 0.01 | 0.01 |
| | | Ethylene Glycol | 0.01 | 0.01 |
| | | EPP | 0.01 | 0.01 |
| | | Total VOC | 7.15 | 0.32 |
| PCS-MSSCNT (8) | Controlled Equipment Clearing | HCl | 0.03 | 0.01 |
| | | Acetone | 0.57 | 0.01 |
| | | Ammonia | 0.01 | 0.01 |
| | | Methylene Chloride | 3.99 | 0.03 |
| | | High boiling diphenyl carbonyl (DPC) | 0.01 | 0.01 |
| | | $NO_x$ | 0.02 | 0.01 |
| | | CO | 0.18 | 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
VOC-U - VOC unspeciated
$NO_x$ - total oxides of nitrogen
$SO_2$ - 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
CO - carbon monoxide
HCl - hydrochloric acid
$Cl_2$ - chlorine
$COCl_2$ - phosgene
$H_3PO_4$ - phosphoric acid
$H_2SO_4$ - sulfuric acid
EPP - Ethylene Piperidine
(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) Hourly emissions from each Die Oven.

Emission Sources - Maximum Allowable Emission Rates

(7) Combined annual emissions from all four Die Ovens. The total hours of operations for all four die ovens are limited to 17,000 hours per year.
(8) See Attachment C Footnote 1 in Special Conditions for PCS-MSSCNT.

Date: March 3, 2017