EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 22622

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. 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 * lb/hr | TPY |
|---|---|---|---|---|
| 1A, 3, and 189 | Incinerator/Waste Heat Boiler, (5) Incinerator/WHB/Preheater, and Boiler (Combined annual emissions from all three EPNs) | $PM_{10}$ | | 15.03 |
| | | $SO_2$ | | 130.5 |
| | | $NO_X$ | | 25.94 |
| | | CO | | 37.87 |
| | | VOC | | 15.02 |
| | | $H_2S$ | | 0.56 |
| | | HCl | | 1.35 |
| | | Benzene | | 7.80 |
| | | Ethyl Benzene | | 7.42 |
| | | HAPS | | 2.25 |
| 1A | Incinerator/Waste (5 and 6) Heat Boiler | $PM_{10}$ | 1.53 | |
| | | $SO_2$ | 13.34 | |
| | | $NO_X$ | 2.61 | |
| | | CO | 3.83 | |
| | | VOC | 1.53 | |
| | | $H_2S$ | 0.06 | |
| | | HCl | 0.14 | |
| | | Benzene | 0.80 | |
| | | Ethyl Benzene | 0.76 | |
| | | HAPS | 0.23 | |
| 3 | Incinerator/WHB/Preheater (5 and 6) | $PM_{10}$ | 4.60 | |
| | | $SO_2$ | 40.02 | |
| | | $NO_X$ | 7.92 | |
| | | CO | 11.60 | |
| | | VOC | 4.60 | |
| | | $H_2S$ | 0.17 | |
| | | HCl | 0.41 | |
| | | Benzene | 2.40 | |
| | | Ethyl Benzene | 2.30 | |
| | | HAPS | 0.69 | |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

### AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| 189 | Boiler Stack (5 and 6) | $PM_{10}$ | 0.10 | |
| | | $SO_2$ | 0.01 | |
| | | $NO_X$ | 1.26 | |
| | | CO | 1.06 | |
| | | VOC | 0.07 | |
| | | HAPS | <0.0012 | |
| 312 | Preheater Stack (5) | $PM_{10}$ | 0.038 | 0.167 |
| | | $SO_2$ | 0.003 | 0.013 |
| | | $NO_X$ | 0.50 | 2.19 |
| | | CO | 0.420 | 1.84 |
| | | VOC | 0.028 | 0.121 |
| | | HAPS | 0.00043 | <0.002 |
| 221 | Tank 1 Heater (5) | $PM_{10}$ | 0.011 | 0.05 |
| | | $SO_2$ | 0.001 | 0.004 |
| | | $NO_X$ | 0.150 | 0.657 |
| | | CO | 0.130 | 0.552 |
| | | VOC | 0.008 | 0.036 |
| | | HAPS | 0.00013 | <0.006 |
| 224 | Tank 2 Heater (5) | $PM_{10}$ | 0.011 | 0.05 |
| | | $SO_2$ | 0.001 | 0.004 |
| | | $NO_X$ | 0.150 | 0.657 |
| | | CO | 0.130 | 0.552 |
| | | VOC | 0.008 | 0.036 |
| | | HAPS | 0.00013 | <0.006 |
| 227 | Tank 3 Heater (5) | $PM_{10}$ | 0.011 | 0.05 |
| | | $SO_2$ | 0.001 | 0.004 |
| | | $NO_X$ | 0.150 | 0.657 |
| | | CO | 0.130 | 0.552 |
| | | VOC | 0.008 | 0.036 |
| | | HAPS | 0.00013 | <0.006 |
| 230 | Tank 4 Heater (5) | $PM_{10}$ | 0.011 | 0.05 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| | | $SO_2$ | 0.001 | 0.004 |
| | | $NO_X$ | 0.150 | 0.657 |
| | | CO | 0.130 | 0.552 |
| | | VOC | 0.008 | 0.036 |
| | | HAPS | 0.00013 | <0.006 |
| 233 | Tank 6 Heater (5) | $PM_{10}$ | 0.006 | 0.027 |
| | | $SO_2$ | 0.0005 | 0.002 |
| | | $NO_X$ | 0.080 | 0.351 |
| | | CO | 0.07 | 0.295 |
| | | VOC | 0.004 | 0.020 |
| | | HAPS | 0.00007 | <0.001 |
| 236 | Tank 13 Heater (5) | $PM_{10}$ | 0.006 | 0.027 |
| | | $SO_2$ | 0.0005 | 0.002 |
| | | $NO_X$ | 0.080 | 0.351 |
| | | CO | 0.07 | 0.295 |
| | | VOC | 0.004 | 0.020 |
| | | HAPS | 0.00007 | <0.001 |
| 239 | Tank 14 Heater 1 (5) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 240 | Tank 14 Heater 2 (5) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 243 | Tank 15 Heater 1 (5) | $PM_{10}$ | 0.019 | 0.083 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 244 | Tank 15 Heater 2 (5) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 247 | Tank 16 Heater (5) | $PM_{10}$ | 0.006 | 0.027 |
| | | $SO_2$ | 0.0005 | 0.002 |
| | | $NO_X$ | 0.080 | 0.351 |
| | | CO | 0.07 | 0.295 |
| | | VOC | 0.004 | 0.020 |
| | | HAPS | 0.00007 | <0.001 |
| 250 | Tank 17 Heater 1 (5) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 251 | Tank 17 Heater 2 (5) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.250 | 1.100 |
| | | CO | 0.210 | 0.920 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.00022 | <0.001 |
| 254 | Tank 18 Heater (5) | $PM_{10}$ | 0.006 | 0.027 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| | | $SO_2$ | 0.0005 | 0.002 |
| | | $NO_X$ | 0.080 | 0.351 |
| | | CO | 0.07 | 0.295 |
| | | VOC | 0.004 | 0.020 |
| | | HAPS | 0.00007 | <0.001 |
| 271 and FUG-2 | Asphalt Tank Car (4 and 7) Unloading | PM | 0.0012 | <0.003 |
| | | $PM_{10}$ | 0.0001 | <0.001 |
| | | CO | 0.1173 | 0.122 |
| | | $H_2S$ | 0.1137 | 0.118 |
| | | VOC(a) | 0.0041 | 0.009 |
| 217, 218, and 219 | Asphalt Truck Loading (5 and 7) Racks | PM | 0.132 | 0.092 |
| | | $PM_{10}$ | 0.013 | 0.009 |
| | | CO | 0.257 | 0.085 |
| | | VOC(a) | 0.479 | 0.57 |
| | | $H_2S$ | 0.039 | 0.02 |
| | | HAPS | 0.0003 | <0.001 |
| 258 | Tank 20 | VOC | 0.022 | <0.001 |
| 280 and 282 through 286 | Pouring Sheds A, B, (7) and C | PM | 0.986 | 0.779 |
| | | $PM_{10}$ | 0.0986 | 0.078 |
| | | CO | 0.045 | 0.035 |
| | | VOC(a) | 3.50 | 2.76 |
| | | $H_2S$ | 0.0011 | <0.001 |
| 287 | Asphalt Solvent (5) Cold Cleaner | VOC | 0.075 | 0.330 |
| | | HAPS | 0.0059 | 0.024 |
| 311 | Cutter Stock Loading System | VOC | 46.97 | 3.41 |
| 313 | Asphalt Solvent (5) Cold Cleaner | VOC | 0.075 | 0.330 |
| | | HAPS | 0.0004 | <0.002 |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

### AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| 23-A, 23-B, 23-C, and 23-D | Cooling Stack (7) | PM | 6.72 | 26.38 |
| | | $PM_{10}$ | 2.02 | 7.91 |
| | | VOC | 2.35 | 9.23 |
| 4 | Filler Silo Baghouse | $PM_{10}$ | 0.18 | 0.79 |
| | | HAPS 0.00054 | 0.002 | |
| 5 | Filler Hopper Baghouse | $PM_{10}$ | 0.10 | 0.45 |
| | | HAPS 0.00036 | <0.002 | |
| 6 | Filler Heater Baghouse | PM | 0.02 | 0.08 |
| | | HAPS | 0.00036 | <0.002 |
| 10 | Sand Silo Baghouse | $PM_{10}$ | 0.002 | 0.009 |
| | | HAPS | 0.0011 | 0.004 |
| 11 | Process Dust Collector | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.50 | 1.95 |
| | | HAPS 0.00036 | <0.002 | |
| 16 | Filler Oil Heater | $PM_{10}$ | 0.114 | 0.50 |
| | | $SO_2$ | 0.009 | 0.04 |
| | | $NO_X$ | 1.50 | 6.57 |
| | | CO | 1.26 | 5.52 |
| | | VOC | 0.083 | 0.36 |
| | | HAPS | 0.0013 | <0.006 |
| 18 | Process Oil Heater | $PM_{10}$ | 0.095 | 0.416 |
| | | $SO_2$ | 0.007 | 0.033 |
| | | $NO_X$ | 1.25 | 5.475 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| | | CO | 1.05 | 4.599 |
| | | VOC | 0.069 | 0.301 |
| | | HAPS | 0.0011 | <0.005 |
| 164 | Sealant Tank | $PM_{10}$ | 0.024 | 0.003 |
| | | CO | 0.854 | 0.035 |
| | | VOC | 0.832 | 0.0107 |
| | | $H_2S$ | 0.114 | 0.006 |
| 318 | Hot Oil Heater No. 2 (5) | $PM_{10}$ | 0.03 | 0.13 |
| | 4 MM BTU | $SO_2$ | <0.001 | 0.01 |
| | | $NO_X$ | 0.40 | 1.75 |
| | | CO | 0.34 | 1.47 |
| | | VOC | 0.02 | 0.10 |
| | | HAPS | 0.0004 | <0.002 |
| 319 | Hot Oil Heater No. 1 (5) | $PM_{10}$ | 0.02 | 0.07 |
| | 2 MM BTU | $SO_2$ | <0.0013 | 0.01 |
| | | $NO_X$ | 0.20 | 0.88 |
| | | CO | 0.17 | 0.74 |
| | | VOC | 0.01 | 0.05 |
| | | HAPS | 0.0002 | <0.001 |
| 320 | 4 Wide RTO Stack (8) | $PM_{10}$ | 0.14 | 0.55 |
| | | $SO_2$ | 0.57 | 2.25 |
| | | $NO_X$ | 0.16 | 0.70 |
| | | CO | 0.14 | 0.63 |
| | | VOC | 0.25 | 0.99 |
| | | HAPS | 0.056 | 0.206 |
| 321 and 322 | 6 Wide Bldg Vents (8) | PM | 2.95 | 12.46 |
| | | $PM_{10}$ | 1.40 | 5.93 |
| | | VOC | 3.28 | 13.85 |

| | | | | |
|---|---|---|---|---|
| | | HAPS | 0.298 | 1.27 |
| 323 | 6 Wide Upper Filler Bin (8) | $PM_{10}$ | 0.09 | 0.38 |
| | | HAPS | 0.0003 | 0.001 |
| 327 | 6 Wide Lower Filler Bin (8) | $PM_{10}$ | 0.006 | 0.02 |
| | | HAPS 0.0003 | 0.001 | |
| 324 | 6 Wide Process Dust Collector (8) | $PM_{10}$ | 0.04 | 0.20 |
| | | VOC | 0.35 | 1.48 |
| | | HAPS | 0.0003 | 0.001 |
| 325 | 6 Wide RTO Stack (8) | $PM_{10}$ | 0.192 | 0.81 |
| | | $SO_2$ | 2.74 | 11.87 |
| | | $NO_X$ | 0.16 | 0.70 |
| | | CO | 0.187 | 0.82 |
| | | VOC | 0.364 | 1.54 |
| | | HAPS | 0.093 | 0.40 |
| 326 | Bulk Filler Silo No. 2 (8) | $PM_{10}$ | 0.09 | 0.38 |
| | | HAPS | 0.0003 | 0.001 |
| 333 | Filler Silo No. 2 | $PM_{10}$ | 0.18 | 0.76 |
| | Transfer Conveyor (8) | HAPS | 0.0006 | 0.002 |
| 328 | Preheater (8) | $PM_{10}$ | 0.019 | 0.083 |
| | | $SO_2$ | 0.002 | 0.007 |
| | | $NO_X$ | 0.25 | 1.095 |
| | | CO | 0.21 | 0.92 |
| | | VOC | 0.014 | 0.06 |
| | | HAPS | 0.0002 | <0.001 |

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY |
|---|---|---|---|---|
| 330 | Bulk Prime Storage | $PM_{10}$ | 0.09 | 0.35 |
| 331 | Bulk Headlap Granule Storage | $PM_{10}$ | 0.07 | 0.33 |

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. For fugitive sources use area name or fugitive source name.
(3) PM - particulate matter suspended in the atmosphere, including $PM_{10}$.
$PM_{10}$ - particulate matter of 10 microns or less in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
$SO_2$ - sulfur dioxide
$NO_X$ - total oxides of nitrogen
VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1.
VOC(a) - asphalt fumes
$H_2S$ - hydrogen sulfide
HCl - hydrogen chloride
HAPS - any of the Section 112(b), Federal Clean Air Act named compounds
CO - carbon monoxide
(4) Fugitive emissions are an estimate only.
(5) HAPS included in PM and VOC emission rates. $H_2S$, HCl, benzene, and ethyl benzene are not included in HAPS value. Speciated emissions are reflected on the Table 1(a) in the permit file.
(6) For annual emissions see EPNs 1A, 3, and 189. These sources shall not operate simultaneously.
(7) Total emissions from all listed EPNs.
(8) All HAPS included in PM and/or VOC emission rates.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

* Emission rates are based on and the facilities are limited by the following maximum operating schedule and throughputs:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

Maximum hourly asphalt blowing throughput and a maximum annual throughput of asphalt are shown by the confidential Owens Corning Fiberglas emission calculations dated June 1999 with revision pages dated July 28, 1999 and located in the confidential file.

Dated July 17, 2000