Emission Sources - Maximum Allowable Emission Rates

Permit Number 22059

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) |
| FI-01 | Fume Incinerator | VOC | 0.35 | 0.33 |
| | | $NO_X$ | 1.20 | 2.42 |
| | | $SO_2$ | 12.68 | 7.95 |
| | | CO | 1.01 | 2.03 |
| | | $H_2S$ | 0.04 | 0.04 |
| | | PM | 0.09 | 0.18 |
| | | $PM_{10}$ | 0.09 | 0.18 |
| | | $PM_{2.5}$ | 0.09 | 0.18 |
| FI-02 | Fume Incinerator | VOC | 1.30 | 1.67 |
| | | $NO_X$ | 2.87 | 5.59 |
| | | $SO_2$ | 0.18 | 0.61 |
| | | CO | 2.41 | 4.69 |
| | | PM | 0.22 | 0.42 |
| | | $PM_{10}$ | 0.22 | 0.42 |
| | | $PM_{2.5}$ | 0.22 | 0.42 |
| | | HCl | 0.01 | 0.01 |
| HO-15 | Hot Oil Heater | PM | 0.18 | 0.78 |
| | | $PM_{10}$ | 0.18 | 0.78 |
| | | $PM_{2.5}$ | 0.18 | 0.78 |
| | | VOC | 0.13 | 0.57 |
| | | $NO_X$ | 0.36 | 1.58 |
| | | $SO_2$ | 0.01 | 0.06 |
| | | CO | 7.20 | 31.54 |
| HHO-15 | Hot Oil Surge Vent | VOC | 0.87 | 0.05 |

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| | | | | |
|---|---|---|---|---|
| FL-177 | Standby Flare Service when FI-01 or FI-02 is not in operation | $NO_X$ | 7.26 | 1.99 |
| | | CO | 19.24 | 3.97 |
| | | $SO_2$ | 13.12 | 7.86 |
| | | VOC | 30.05 | 4.90 |
| | | $H_2S$ | 0.09 | 0.03 |
| | Flare MSS Service | $NO_X$ | 0.32 | 0.18 |
| | | CO | 2.75 | 1.50 |
| | | VOC | 0.03 | 0.01 |
| | | $SO_2$ | 0.01 | 0.01 |
| 15 | Standby Flare with a maximum service of 720 hours per year | VOC | 0.80 | 0.29 |
| POLY-FL-1 | Flare | VOC | 4.43 | 1.15 |
| OF-3 | Plate and Frame Filter | VOC | 2.99 | 7.23 |
| FUG-PF31 | Filter Fugitives | VOC | 0.58 | 2.04 |
| FUG-PF32 | Filter Fugitives | VOC | 0.58 | |
| FUG-PF33 | Filter Fugitives | VOC | 0.58 | |
| FUG-PF34 | Filter Fugitives | VOC | 0.58 | |
| L-10 | Storage Tank | VOC | 0.70 | 0.01 |
| | | HCl | 0.31 | 0.01 |
| Q-2 | Storage Tank | VOC | 0.05 | 0.01 |
| S-33 (FIN Q-5) | Water Scrubber | VOC | 5.37 | 0.12 |
| S-70 | Sulfur Scrubber S-52 | $H_2S$ | 0.05 | 0.01 |
| | | $SO_2$ | 0.34 | 0.02 |
| BH-02 | Lime Silo (Baghouse) | PM | 0.09 | 0.38 |
| | | $PM_{10}$ | 0.04 | 0.19 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| BH-03 | Filter Aide Unloading (Baghouse) | PM | 1.55 | 0.22 |
| | | $PM_{10}$ | 0.31 | 0.05 |
| | | $PM_{2.5}$ | 0.06 | 0.01 |
| BH-04 | Baghouse Filter | PM | 0.09 | 0.38 |

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| | | | | |
|---|---|---|---|---|
| | | $PM_{10}$ | 0.04 | 0.19 |
| | | $PM_{2.5}$ | 0.01 | 0.04 |
| PHL-1LR (FINs C-60LR, C-61LR, PHL-1LR) | Loading | VOC | 0.87 | 0.20 |
| DC-HW-2 | Baghouse Filter | PM | 0.08 | 0.07 |
| | | $PM_{10}$ | 0.04 | 0.04 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| DC-BBU1/2 | Baghouse Filter | PM | 0.01 | 0.03 |
| | | $PM_{10}$ | 0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| MSS-177 | 177 Unit Planned MSS | VOC | 11.86 | 0.13 |
| | | HCl | 0.01 | 0.01 |
| CT-11 | Cooling Tower | VOC | 0.10 | 0.44 |
| | | PM | 0.04 | 0.17 |
| | | $PM_{10}$ | 0.03 | 0.11 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| CT-14 | Cooling Tower | VOC | 0.28 | 0.99 |
| | | PM | 0.11 | 0.38 |
| | | $PM_{10}$ | 0.07 | 0.25 |
| | | $PM_{2.5}$ | 0.01 | 0.01 |
| C-57 | Storage Tank | VOC | 0.24 | 0.01 |
| 177-CT-1 | Storage Tank | VOC | 0.52 | 0.01 |
| 177-CT-2 | Storage Tank | NaClO | 0.04 | 0.01 |
| 177-CT-3 | Storage Tank | $H_2SO_4$ | 0.01 | 0.01 |
| 177-Sample | Drum Loading | VOC | 0.15 | 0.01 |
| H-77LR | Loading | VOC | 0.26 | 0.01 |
| K-1LR | Loading | VOC | 0.19 | 0.01 |
| L-6LR | Loading | VOC | 0.19 | 0.01 |

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| | | | | |
|---|---|---|---|---|
| 177-FUG | 177 Unit Fugitive Emissions (5) | VOC | 4.30 | 18.83 |
| | | $H_2S$ | 0.02 | 0.08 |
| SC-D-31 | D-31 Scrubber | VOC | 0.01 | 0.01 |
| | | $H_2S$ | 0.01 | 0.01 |
| **Permit by rule (PBR) sources incorporated by reference. Sources remain authorized by the PBR(s) as listed below:** | | | | |
| 30 TAC 106.352 | | | | |
| 177-WWC | Wastewater Collection System | VOC | 0.16 | 0.72 |
| 30 TAC 106.472 | | | | |
| H-1ALR | Loading | VOC | 0.13 | 0.01 |
| H-2ALR | Loading | VOC | 0.13 | 0.01 |
| H-73LR | Loading | VOC | 0.28 | 0.01 |
| H-78LR | Loading | VOC | 0.47 | 0.01 |
| K-13LR | Loading | VOC | 0.14 | 0.01 |
| K-14LR | Loading | VOC | 0.14 | 0.01 |
| K-4LR | Loading | VOC | 0.14 | 0.01 |
| K-9LR | Loading | VOC | 0.14 | 0.01 |
| L-5LR | Loading | VOC | 0.14 | 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.
$NO_X$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including $PM_{10}$ and $PM_{2.5}$
$PM_{10}$ - particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
$H_2S$ - hydrogen sulfide
HCl - hydrogen chloride
NaClO - sodium hypochlorite
(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 23, 2014

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