Emission Sources - Maximum Allowable Emission Rates

Permit Number 84108

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 | Source Name | Air Contaminant Name (3) | Emission Rates | |
|-----------------------|--------------------------------|--------------------------|----------------|---------|
| No. (1) | (2) | | lbs/hour | TPY (4) |
| FUG-1 | Fugitives (5) | VOC | 4.67 | 20.45 |
| FUG-2 | Fugitives (5) | VOC | 0.02 | 0.11 |
| FUG-5 | Truck Loading | VOC | 1.62 | 0.58 |
| FUG-6 | Hose Disconnects | VOC | 0.54 | 1.42 |
| FL-5 | Flare - Pilot Gas | VOC | 0.01 | 0.01 |
| | | NOx | 0.02 | 0.09 |
| | | СО | 0.04 | 0.18 |
| | | SO2 | 0.01 | 0.01 |
| FL-5 | Flare - Purging of Truck Tanks | VOC | 13.80 | 0.69 |
| | | NOx | 0.50 | 0.03 |
| | | СО | 0.99 | 0.05 |
| | | SO2 | 0.01 | 0.01 |
| H-7001 | Heater | VOC | 0.07 | 0.30 |
| | | NOx | 1.23 | 5.38 |
| | | СО | 1.03 | 4.52 |
| | | SO2 | 0.01 | 0.03 |
| | | PM10 | 0.09 | 0.41 |
| V-3 | Liquid Phase Amine Unit | VOC | 1.29 | 5.64 |
| | | Benzene (6) | 1.13 | 4.96 |
| V-4 | Liquid Phase Glycol Unit | VOC | 0.01 | 0.01 |

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| RTO-1 | Amine System RTO in | VOC | 1.16 | 5.08 |
|-------------|---|-----------------------|------------------|-------|
| | normal operation | Benzene (6) | 0.17 | 0.75 |
| | | NOx | 0.07 | 0.32 |
| | | СО | 2.21 | 9.68 |
| | | SO2 | 7.44 | 32.60 |
| | | H2S | 0.08 | 0.35 |
| Planned Mai | ntenance, Start-up, and Shutdo | wn (MSS) Activities E | <u>missions:</u> | |
| FL-5 | Flare - MSS | VOC | 133.38 | 0.11 |
| | | NOx | 28.98 | 0.03 |
| | | СО | 57.86 | 0.06 |
| | | SO2 | 0.01 | 0.01 |
| SV-36 | Pit Water Tank | VOC | 27.69 | 0.14 |
| SV-37 | Pit Water Tank | VOC | 44.35 | 0.12 |
| SV-38 | Pit Water Tank | VOC | 44.35 | 0.12 |
| SV-39 | Condensate Tank | VOC | 7.70 | 0.17 |
| SV-40 | Condensate Tank | VOC | 7.70 | 0.17 |
| SV-41 | Condensate Tank | VOC | 7.70 | 0.17 |
| SV-43 | Condensate Tank | VOC | 0.41 | 0.10 |
| V-1 | Inlet Gas Glycol Unit No. 1 | VOC | 13.58 | 1.96 |
| V-6 | Inlet Gas Glycol Unit No. 2 | VOC | 13.38 | 1.96 |
| RTO-1 | Amine System RTO Startup Emissions (7) | VOC | 0.30 | 0.01 |
| | Startup Lillissions (1) | NOx | 0.30 | 0.01 |
| | | СО | 0.30 | 0.01 |
| V-2 | No. 1 Amine Unit (8) | VOC | 25.66 | 1.95 |
| | | Benzene (6) | 3.80 | 0.29 |

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| | | H2S | 1.79 | 0.14 |
|-----|----------------------|-------------|-------|------|
| V-5 | No. 2 Amine Unit (8) | VOC | 32.32 | 2.46 |
| | | Benzene (6) | 4.78 | 0.36 |
| | | H2S | 2.25 | 0.17 |

- (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 emission rates shown in this maximum allowable emission rates table include benzene, toluene and xylene (BTEX) contributions

NOx - total oxides of nitrogen

CO - carbon monoxide

SO2 - sulfur dioxide

 $\,$ PM $\,$ - $\,$ total particulate matter, suspended in the atmosphere, including PM_{10}

PM10 - total particulate matter equal to or less than 10 microns in diameter

H2S - hydrogen sulfide

- (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) Benzene emissions are also included in the VOC emission rates shown in this table.
- (7) Amine System RTO startup emissions based on 4 startups per year, 2 hours for each startup.
- (8) Emissions during periods of Amine System RTO maintenance (152 hours per year).

| Date: | May 12, 2014 | |
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