

# Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX170

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized 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 authorized by this permit.

## Air Contaminants Data

| Emission Point No. (1) | Source Name (2)     | Air Contaminant Name (3) | Emission Rates |
|------------------------|---------------------|--------------------------|----------------|
|                        |                     |                          | TPY (4)        |
| O_FAF01                | Pyrolysis Furnace A | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |
| O_FBF01                | Pyrolysis Furnace B | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |
| O_FCF01                | Pyrolysis Furnace C | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |
| O_FDF01                | Pyrolysis Furnace D | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |
| O_FEF01                | Pyrolysis Furnace E | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |
| O-FFF01                | Pyrolysis Furnace F | CO <sub>2</sub> (5)      | —              |
|                        |                     | CH <sub>4</sub> (5)      | —              |
|                        |                     | N <sub>2</sub> O (5)     | —              |
|                        |                     | CO <sub>2</sub> e        | —              |

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|           |   |                      |            |
|-----------|---|----------------------|------------|
| O_FGF01   | Pyrolysis Furnace G                                     | CO <sub>2</sub> (5)  | —          |
|           |   | CH <sub>4</sub> (5)  | —          |
|           |   | N <sub>2</sub> O (5) | —          |
|           |   | CO <sub>2</sub> e    | —          |
| O_FHF01   | Pyrolysis Furnace H                                     | CO <sub>2</sub> (5)  | —          |
|           |   | CH <sub>4</sub> (5)  | —          |
|           |   | N <sub>2</sub> O (5) | —          |
|           |   | CO <sub>2</sub> e    | —          |
| O_F_CAP   | Pyrolysis Furnaces Cap                                  | CO <sub>2</sub> (5)  | 1555774.36 |
|           |   | CH <sub>4</sub> (5)  | 129.80     |
|           |   | N <sub>2</sub> O (5) | 25.96      |
|           |   | CO <sub>2</sub> e    | 1566755.63 |
| UFFLARE01 | Multi-point Ground Flare                                | CO <sub>2</sub> (5)  | —          |
|           |   | CH <sub>4</sub> (5)  | —          |
|           |   | N <sub>2</sub> O (5) | —          |
|           |   | CO <sub>2</sub> e    | —          |
| UFFLARE02 | Shared Elevated Flare                                   | CO <sub>2</sub> (5)  | —          |
|           |   | CH <sub>4</sub> (5)  | —          |
|           |   | N <sub>2</sub> O (5) | —          |
|           |   | CO <sub>2</sub> e    | —          |
| CAPUFFLR  | Shared Elevated and Ground Flare Cap                    | CO <sub>2</sub> (5)  | 148,571.69 |
|           |   | CH <sub>4</sub> (5)  | 448.46     |
|           |   | N <sub>2</sub> O (5) | 1.49       |
|           |   | CO <sub>2</sub> e    | 160,225.88 |
| CAPUFFLR  | Shared Elevated and Ground Flare Cap (Shakedown Period) | CO <sub>2</sub> (5)  | 189,697.77 |
|           |   | CH <sub>4</sub> (5)  | 572.60     |
|           |   | N <sub>2</sub> O (5) | 1.90       |
|           |   | CO <sub>2</sub> e    | 204,577.95 |
| O_FUG     | Olefins Unit Fugitives                                  | CH <sub>4</sub>      | 10.49      |
|           |   | CO <sub>2</sub> e    | 262.21     |
| O-REGEN   | Olefins Regeneration Vent                               | CO <sub>2</sub> (5)  | 17.18      |
|           |   | CO <sub>2</sub> e    | 17.18      |
| GFFLARE01 | MEG Elevated Flare                                      | CO <sub>2</sub> (5)  | —          |

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|         |  |                      |            |
|---------|--|----------------------|------------|
| GBX02   | MEG Thermal Oxidizer   | CH <sub>4</sub> (5)  | —          |
|         |  | N <sub>2</sub> O (5) | —          |
|         |  | CO <sub>2</sub> e    | —          |
|         |  | CO <sub>2</sub> (5)  | —          |
| G_FUG   | Glycol Unit Fugitives  | CH <sub>4</sub> (5)  | —          |
|         |  | N <sub>2</sub> O (5) | —          |
|         |  | CO <sub>2</sub> e    | —          |
|         |  | CO <sub>2</sub> (5)  | 0.76       |
| GLYCAP  | MEG Elevated Flare and MEG Thermal Oxidizer Cap                    | CH <sub>4</sub> (5)  | 2.11       |
|         |  | N <sub>2</sub> O (5) | 53.62      |
|         |  | CO <sub>2</sub> e    | 428,041.27 |
|         |  | CO <sub>2</sub> (5)  | 283.66     |
| GLYCAP  | MEG Elevated Flare and MEG Thermal Oxidizer Cap (Shakedown Period) | CH <sub>4</sub> (5)  | 0.93       |
|         |  | N <sub>2</sub> O (5) | 1.00       |
|         |  | CO <sub>2</sub> e    | 442,343.79 |
|         |  | CO <sub>2</sub> (5)  | 300.98     |
| USSG01A | Utilities Boiler A   | CH <sub>4</sub> (5)  | —          |
|         |  | N <sub>2</sub> O (5) | —          |
|         |  | CO <sub>2</sub> e    | —          |
|         |  | CO <sub>2</sub> (5)  | —          |
| USSG01B | Utilities Boiler B   | CH <sub>4</sub> (5)  | —          |
|         |  | N <sub>2</sub> O (5) | —          |
|         |  | CO <sub>2</sub> e    | —          |
|         |  | CO <sub>2</sub> (5)  | —          |
| USSG01C | Utilities Boiler C   | CH <sub>4</sub> (5)  | —          |
|         |  | N <sub>2</sub> O (5) | —          |
|         |  | CO <sub>2</sub> e    | —          |
|         |  | CO <sub>2</sub> (5)  | —          |

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|           |                                     |                      |           |
|-----------|-------------------------------------|----------------------|-----------|
| USSG01CAP | Utilities Boiler Cap                | CO <sub>2</sub> (5)  | 676557.06 |
|           |                                     | CH <sub>4</sub> (5)  | 45.63     |
|           |                                     | N <sub>2</sub> O (5) | 9.13      |
|           |                                     | CO <sub>2</sub> e    | 680417.66 |
| UFF01A    | Shared Thermal Oxidizer A           | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |
| UFF01B    | Shared Thermal Oxidizer B           | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |
| UFF01     | Shared Thermal Oxidizer Cap         | CO <sub>2</sub> (5)  | 63536.78  |
|           |                                     | CH <sub>4</sub> (5)  | 191.84    |
|           |                                     | N <sub>2</sub> O (5) | 0.64      |
|           |                                     | CO <sub>2</sub> e    | 68522.08  |
| U_FUG     | Utilities Fugitives                 | CH <sub>4</sub>      | 6.27      |
|           |                                     | CO <sub>2</sub> e    | 156.69    |
| EMGGEN01  | Olefins Emergency Generator No. 1   | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |
| EMGGEN02  | Utilities Emergency Generator No. 2 | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |
| ADMINGEN  | Admin Emergency Generator No. 1     | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |
| FWP1      | Firewater Pump No.1                 | CO <sub>2</sub> (5)  | —         |
|           |                                     | CH <sub>4</sub> (5)  | —         |
|           |                                     | N <sub>2</sub> O (5) | —         |
|           |                                     | CO <sub>2</sub> e    | —         |

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|            |  |                      |         |
|------------|--|----------------------|---------|
| FWP2       | Firewater Pump No. 2                       | CO <sub>2</sub> (5)  | —       |
|            |  | CH <sub>4</sub> (5)  | —       |
|            |  | N <sub>2</sub> O (5) | —       |
|            |  | CO <sub>2</sub> e    | —       |
| GLYGEN01   | Glycol Emergency Generator No. 1           | CO <sub>2</sub> (5)  | —       |
|            |  | CH <sub>4</sub> (5)  | —       |
|            |  | N <sub>2</sub> O (5) | —       |
|            |  | CO <sub>2</sub> e    | —       |
| ENGINECAP  | Emergency Generator and Firewater Pump Cap | CO <sub>2</sub> (5)  | 1132.44 |
|            |  | CH <sub>4</sub> (5)  | 0.05    |
|            |  | N <sub>2</sub> O (5) | 0.01    |
|            |  | CO <sub>2</sub> e    | 1136.33 |
| MSS_CAP    | Maintenance, Startup and Shutdown Cap      | CO <sub>2</sub> (5)  | 78.59   |
|            |  | CH <sub>4</sub> (5)  | 0.24    |
|            |  | N <sub>2</sub> O (5) | < 0.01  |
|            |  | CO <sub>2</sub> e    | 84.75   |
| MSS_TANK   | Tank Maintenance, Startup and Shutdown Cap | CO <sub>2</sub> (5)  | 314.34  |
|            |  | CH <sub>4</sub> (5)  | 0.95    |
|            |  | N <sub>2</sub> O (5) | < 0.01  |
|            |  | CO <sub>2</sub> e    | 339.01  |
| PE_FUG     | Total Emissions from EPNs E_FUG, C_FUG     | CH <sub>4</sub> (5)  | 0.09    |
|            |  | CO <sub>2</sub> e    | 2.21    |
| PE_REGEN   | PE Regeneration Vent                       | CO <sub>2</sub> (5)  | 38.40   |
|            |  | CO <sub>2</sub> e    | 38.40   |
| ZWSRCO1A/B | Equalization Tanks Catalytic Oxidizer      | CO <sub>2</sub> (5)  | 573.68  |
|            |  | CH <sub>4</sub> (5)  | 1.73    |
|            |  | N <sub>2</sub> O (5) | < 0.01  |
|            |  | CO <sub>2</sub> e    | 618.69  |

(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) CO<sub>2</sub> - carbon dioxide  
N<sub>2</sub>O - nitrous oxide  
CH<sub>4</sub> - methane  
CO<sub>2</sub>e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):  
CO<sub>2</sub> (1), N<sub>2</sub>O (298), CH<sub>4</sub>(25), SF<sub>6</sub> (22,800), HFC (various), PFC (various)

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- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
- (5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

Date: February 3, 2023