

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 2175

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) |
| 301M354                | Nylon cooling tower   | VOC                               | 3.50           | 11.00   |
| 302M331                | Boilers 5   | NO <sub>x</sub>                   | 90.00          | 296.72  |
|                        |   | CO                                | 32.37          | 13.22   |
|                        |   | SO <sub>2</sub>                   | 2.21           | 7.14    |
|                        |   | PM                                | 3.35           | 10.98   |
| 302M460                | Boiler 6  | NO <sub>x</sub>                   | 113.93         | 270.35  |
|                        |   | CO                                | 35.10          | 31.86   |
|                        |   | SO <sub>2</sub>                   | 6.46           | 4.99    |
|                        |   | PM                                | 3.09           | 7.34    |
| 302M331 and 302M460    | Combined Emission Limits for Boilers 5 and 6 – Process Vents to Boilers | VOC (7)                           | 2.00           | 6.44    |
|                        |   | SO <sub>2</sub> (8)               | 19.66          | 0.06    |
| 302M3069               | Boiler 8: gas-fired, 355 MMBtu/hr                                       | NO <sub>x</sub>                   | 5.33           | 15.55   |
|                        |   | NO <sub>x</sub> (Non-routine) (5) | 24.00          |         |
|                        |   | CO                                | 26.00          | 59.00   |
|                        |   | CO (Non-routine) (5)              | 150.00         |         |
|                        |   | VOC                               | 0.09           | 0.39    |
|                        |   | SO <sub>2</sub>                   | 4.80           | 21.00   |
|                        |   | PM                                | 2.60           | 11.00   |
|                        |   | PM <sub>10</sub>                  | 2.60           | 11.00   |
|                        |   | PM <sub>2.5</sub>                 | 2.60           | 11.00   |
|                        |   | NH <sub>3</sub>                   | 1.60           | 7.00    |
| 302M3077               | Boiler 9: hazardous waste liquid and gas-fired, 200 MMBtu/hr            | NO <sub>x</sub>                   | 24.00          | 106.00  |
|                        |   | NO <sub>x</sub> (Non-routine) (5) | 43.00          |         |
|                        |   | CO                                | 15.60          | 34.00   |
|                        |   | CO (Non-routine) (5)              | 39.00          |         |
|                        |   | VOC                               | 1.50           | 6.80    |
|                        |   | SO <sub>2</sub>                   | 2.60           | 11.00   |
|                        |   | PM                                | 4.30           | 19.00   |
|                        |   | PM <sub>10</sub>                  | 4.50           | 19.00   |
|                        |   | PM <sub>2.5</sub>                 | 4.30           | 19.00   |

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|                               |   |                  |                                   |        |        |
|-------------------------------|---|------------------|-----------------------------------|--------|--------|
| 302M5306                      | Boiler 10: gas-fired, 355 MMBtu/hr  |                  | NO <sub>x</sub>                   | 5.33   | 19.13  |
|                               |   |                  | NO <sub>x</sub> (Non-routine) (5) | 13.13  |        |
|                               |   |                  | CO                                | 26.65  | 47.85  |
|                               |   |                  | CO (Non-routine) (5)              | 106.59 |        |
|                               |   |                  | VOC                               | 1.92   | 6.89   |
|                               |   |                  | SO <sub>2</sub>                   | 5.22   | 18.75  |
|                               |   |                  | PM                                | 2.66   | 9.56   |
|                               |   |                  | PM <sub>10</sub>                  | 2.66   | 9.56   |
|                               |   |                  | PM <sub>2.5</sub>                 | 2.66   | 9.56   |
|                               |   |                  | NH <sub>3</sub>                   | 1.62   | 5.82   |
| 302F                          | Utilities equipment fugitives (includes fuels components/piping, excludes wastewater fugitives) (6) |                  | VOC                               | 3.30   | 15.00  |
|                               |   |                  | CO                                | 0.22   | 0.95   |
|                               |   |                  | NH <sub>3</sub>                   | 0.02   | 0.07   |
| 302 ANAL                      | Boiler stack emission analyzer vents  |                  | CO                                | 4.40   | 14.00  |
|                               |   |                  | VOC                               | 3.70   | 1.60   |
| 302GB                         | Reformer guard bed regeneration   |                  | SO <sub>2</sub>                   | 49.00  | 1.90   |
| 302V3014                      | Lime silo baghouse  |                  | PM                                | 0.10   | 0.45   |
|                               |   |                  | PM <sub>10</sub>                  | 0.10   | 0.45   |
|                               |   |                  | PM <sub>2.5</sub>                 | 0.10   | 0.45   |
| 303M1239                      | Ethylene flare  | Normal operation | NO <sub>x</sub>                   | 54.00  | 26.00  |
|                               |   |                  | CO                                | 282.00 | 135.00 |
|                               |   |                  | VOC                               | 310.00 | 77.00  |
|                               |   |                  | SO <sub>2</sub>                   | 7.20   | 4.50   |
|                               | Vinyl Acetate and Utilities units: Maintenance, Startup, and Shutdown (MSS) Operations              |                  | NO <sub>x</sub>                   | 80.00  | 0.20   |
|                               |   |                  | CO                                | 445.00 | 0.60   |
|                               |   |                  | VOC                               | 419.00 | 0.50   |
|                               |   |                  | SO <sub>2</sub>                   | 5.00   | 0.05   |
| 304M024, 304M375, and 304M490 | Selas reformer girdlers I and II Combined Emission Limits   |                  | NO <sub>x</sub>                   | 43.00  | 70.00  |
|                               |   |                  | CO                                | 24.00  | 59.00  |
|                               |   |                  | VOC                               | 1.60   | 3.90   |
|                               |   |                  | SO <sub>2</sub>                   | 0.17   | 0.42   |
|                               |   |                  | PM <sub>10</sub>                  | 2.20   | 5.30   |
| 304V206                       | MEA Offloading  |                  | VOC                               | 0.85   | 0.02   |
| 304V375                       | MEA Storage   |                  | VOC                               | 5.60   | 0.73   |
| 304V440                       | MEA Storage   |                  | VOC                               | 0.05   | 0.15   |
| AREA7                         | Wastewater treatment plant  |                  | VOC                               | 1.10   | 1.60   |

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|          |                          |                 |      |      |
|----------|--------------------------|-----------------|------|------|
| 308F     | Wastewater fugitives (6) | VOC             | 0.01 | 0.03 |
| 302F     | SCR fugitives (6)        | NH <sub>3</sub> | 0.05 | 0.21 |
| 308M2309 | Sludge dryer             | NO <sub>x</sub> | 1.30 | 1.60 |
|          |                          | CO              | 1.10 | 1.40 |
|          |                          | VOC             | 0.07 | 0.09 |
|          |                          | SO <sub>2</sub> | 0.01 | 0.01 |
|          |                          | PM              | 0.10 | 0.12 |

- (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) NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
SO<sub>2</sub> - sulfur dioxide  
PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>  
PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
NH<sub>3</sub> - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. Annual MSS and non-routine emissions are included in normal operation annual limits.
- (5) Alternate limit applies during non-routine operations as specified in Special Condition Nos. 3 and 5 of the permit.
- (6) Fugitive emission rate is an estimate and is enforceable through compliance with the applicable special conditions and permit application representations.
- (7) The VOC emission cap applies to VOC emissions that result from the combustion of vent gas streams and natural gas in Boilers 5 and 6.
- (8) The SO<sub>2</sub> emission cap applies only to SO<sub>2</sub> emissions that result from the combustion of vent gas streams in Boilers 5 and 6.

Date: TBD