

# Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 104840 and N170

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.<br>(1) | Source Name (2)         | Air Contaminant Name (3)       | Emission Rates (4) |         |
|---------------------------|-------------------------|--------------------------------|--------------------|---------|
|                           |                         |                                | lbs/hour           | TPY (5) |
| 65B-81A                   | Heating Medium Heater A | NO <sub>x</sub>                | 0.83               | -       |
|                           |                         | CO                             | 2.52               | -       |
|                           |                         | PM                             | 0.91               | -       |
|                           |                         | PM <sub>10</sub>               | 0.91               | -       |
|                           |                         | PM <sub>2.5</sub>              | 0.91               | -       |
|                           |                         | SO <sub>2</sub>                | 0.08               | -       |
|                           |                         | H <sub>2</sub> SO <sub>4</sub> | <0.01              | -       |
|                           |                         | VOC                            | 0.26               | -       |
| 65B-81B                   | Heating Medium Heater B | NO <sub>x</sub>                | 0.83               | -       |
|                           |                         | CO                             | 2.52               | -       |
|                           |                         | PM                             | 0.91               | -       |
|                           |                         | PM <sub>10</sub>               | 0.91               | -       |
|                           |                         | PM <sub>2.5</sub>              | 0.91               | -       |
|                           |                         | SO <sub>2</sub>                | 0.08               | -       |
|                           |                         | H <sub>2</sub> SO <sub>4</sub> | <0.01              | -       |
|                           |                         | VOC                            | 0.26               | -       |
| 65B-81C                   | Heating Medium Heater C | NO <sub>x</sub>                | 0.83               | -       |
|                           |                         | CO                             | 2.52               | -       |
|                           |                         | PM                             | 0.91               | -       |
|                           |                         | PM <sub>10</sub>               | 0.91               | -       |

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|                   |  |                                |       |       |
|-------------------|--|--------------------------------|-------|-------|
|                   |  | PM <sub>2.5</sub>              | 0.91  | -     |
|                   |  | SO <sub>2</sub>                | 0.08  | -     |
|                   |  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | -     |
|                   |  | VOC                            | 0.26  | -     |
| 65B-81D           | Heating Medium Heater D  | NO <sub>x</sub>                | 0.83  | -     |
|                   |  | CO                             | 2.52  | -     |
|                   |  | PM                             | 0.91  | -     |
|                   |  | PM <sub>10</sub>               | 0.91  | -     |
|                   |  | PM <sub>2.5</sub>              | 0.91  | -     |
|                   |  | SO <sub>2</sub>                | 0.08  | -     |
|                   |  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | -     |
|                   |  | VOC                            | 0.26  | -     |
| 65B-81E           | Heating Medium Heater E  | NO <sub>x</sub>                | 0.83  | -     |
|                   |  | CO                             | 2.52  | -     |
|                   |  | PM                             | 0.91  | -     |
|                   |  | PM <sub>10</sub>               | 0.91  | -     |
|                   |  | PM <sub>2.5</sub>              | 0.91  | -     |
|                   |  | SO <sub>2</sub>                | 0.08  | -     |
|                   |  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | -     |
|                   |  | VOC                            | 0.26  | -     |
| 65B-81A through E | Heating Medium Heaters A through E<br><br>Annual Emissions Cap | NO <sub>x</sub>                | -     | 4.36  |
|                   |  | CO                             | -     | 13.27 |
|                   |  | PM                             | -     | 4.79  |
|                   |  | PM <sub>10</sub>               | -     | 4.79  |
|                   |  | PM <sub>2.5</sub>              | -     | 4.79  |

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|     |                                 |                                |      |      |
|-----|---------------------------------|--------------------------------|------|------|
|     |                                 | SO <sub>2</sub>                | -    | 0.41 |
|     |                                 | H <sub>2</sub> SO <sub>4</sub> | -    | 0.03 |
|     |                                 | VOC                            | -    | 1.37 |
| TO1 | Amine Unit/ Thermal Oxidizer 61 | NO <sub>x</sub>                | 0.30 | 1.31 |
|     |                                 | CO                             | 0.09 | 0.40 |
|     |                                 | PM                             | 1.29 | 5.65 |
|     |                                 | PM <sub>10</sub>               | 1.29 | 5.65 |
|     |                                 | PM <sub>2.5</sub>              | 1.29 | 5.65 |
|     |                                 | SO <sub>2</sub>                | 0.85 | 3.04 |
|     |                                 | H <sub>2</sub> SO <sub>4</sub> | 0.06 | 0.23 |
|     |                                 | VOC                            | 0.02 | 0.09 |
|     |                                 | H <sub>2</sub> S               | 0.17 | 0.62 |
| TO2 | Amine Unit/ Thermal Oxidizer 62 | NO <sub>x</sub>                | 0.30 | 1.31 |
|     |                                 | CO                             | 0.09 | 0.40 |
|     |                                 | PM                             | 1.29 | 5.65 |
|     |                                 | PM <sub>10</sub>               | 1.29 | 5.65 |
|     |                                 | PM <sub>2.5</sub>              | 1.29 | 5.65 |
|     |                                 | SO <sub>2</sub>                | 0.85 | 3.04 |
|     |                                 | H <sub>2</sub> SO <sub>4</sub> | 0.06 | 0.23 |
|     |                                 | VOC                            | 0.02 | 0.09 |
|     |                                 | H <sub>2</sub> S               | 0.17 | 0.62 |
| TO3 | Amine Unit/ Thermal Oxidizer 63 | NO <sub>x</sub>                | 0.30 | 1.31 |
|     |                                 | CO                             | 0.09 | 0.40 |
|     |                                 | PM                             | 1.29 | 5.65 |
|     |                                 | PM <sub>10</sub>               | 1.29 | 5.65 |

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|          |                          |                                |        |       |
|----------|--------------------------|--------------------------------|--------|-------|
|          |                          | PM <sub>2.5</sub>              | 1.29   | 5.65  |
|          |                          | SO <sub>2</sub>                | 0.85   | 3.04  |
|          |                          | H <sub>2</sub> SO <sub>4</sub> | 0.06   | 0.23  |
|          |                          | VOC                            | 0.02   | 0.09  |
|          |                          | H <sub>2</sub> S               | 0.17   | 0.62  |
| CT       | Combustion Turbine Stack | NO <sub>x</sub>                | 9.87   | 40.29 |
|          |                          | NO <sub>x</sub> (SS)           | 87.00  | -     |
|          |                          | CO                             | 12.02  | 48.95 |
|          |                          | CO (SS)                        | 57.00  | -     |
|          |                          | PM <sub>10</sub>               | 15.22  | 65.06 |
|          |                          | PM <sub>2.5</sub>              | 15.22  | 65.06 |
|          |                          | SO <sub>2</sub>                | 3.68   | 15.12 |
|          |                          | H <sub>2</sub> SO <sub>4</sub> | 0.28   | 1.16  |
|          |                          | VOC                            | 3.43   | 13.95 |
|          |                          | NH <sub>3</sub>                | 18.24  | 74.11 |
| LUBVENT  | Lube Oil Vent            | PM <sub>10</sub>               | 0.05   | 0.22  |
|          |                          | PM <sub>2.5</sub>              | 0.05   | 0.22  |
|          |                          | VOC                            | 0.05   | 0.22  |
| PTFFLARE | PTF Flare                | NO <sub>x</sub>                | 21.65  | 2.06  |
|          |                          | CO                             | 43.22  | 4.11  |
|          |                          | VOC                            | 127.21 | 1.15  |
| PTFFWP   | Fire Water Pump          | NO <sub>x</sub>                | 4.12   | 0.21  |
|          |                          | CO                             | 3.80   | 0.19  |
|          |                          | PM                             | 0.22   | 0.01  |
|          |                          | PM <sub>10</sub>               | 0.22   | 0.01  |

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|         |                              |                                |       |        |
|---------|------------------------------|--------------------------------|-------|--------|
|         |                              | PM <sub>2.5</sub>              | 0.22  | 0.01   |
|         |                              | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                              | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                              | VOC                            | 0.22  | 0.01   |
| PTFEG-1 | Emergency Generator Train 61 | NO <sub>x</sub>                | 7.55  | 0.19   |
|         |                              | CO                             | 4.34  | 0.11   |
|         |                              | PM                             | 0.25  | 0.01   |
|         |                              | PM <sub>10</sub>               | 0.25  | 0.01   |
|         |                              | PM <sub>2.5</sub>              | 0.25  | 0.01   |
|         |                              | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                              | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                              | VOC                            | 0.40  | 0.0099 |
| PTFEG-2 | Emergency Generator Train 62 | NO <sub>x</sub>                | 7.55  | 0.19   |
|         |                              | CO                             | 4.34  | 0.11   |
|         |                              | PM                             | 0.25  | 0.01   |
|         |                              | PM <sub>10</sub>               | 0.25  | 0.01   |
|         |                              | PM <sub>2.5</sub>              | 0.25  | 0.01   |
|         |                              | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                              | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                              | VOC                            | 0.40  | 0.0099 |
| PTFEG-3 | Emergency Generator Train 63 | NO <sub>x</sub>                | 7.55  | 0.19   |
|         |                              | CO                             | 4.34  | 0.11   |
|         |                              | PM                             | 0.25  | 0.01   |
|         |                              | PM <sub>10</sub>               | 0.25  | 0.01   |
|         |                              | PM <sub>2.5</sub>              | 0.25  | 0.01   |

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|         |                                  |                                |       |        |
|---------|----------------------------------|--------------------------------|-------|--------|
|         |                                  | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                                  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                                  | VOC                            | 0.40  | 0.0099 |
| PTFEG-4 | Emergency Generator Utility Area | NO <sub>x</sub>                | 7.55  | 0.19   |
|         |                                  | CO                             | 4.34  | 0.11   |
|         |                                  | PM                             | 0.25  | 0.01   |
|         |                                  | PM <sub>10</sub>               | 0.25  | 0.01   |
|         |                                  | PM <sub>2.5</sub>              | 0.25  | 0.01   |
|         |                                  | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                                  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                                  | VOC                            | 0.40  | 0.0099 |
| PTFEG-5 | Emergency Generator Utility Area | NO <sub>x</sub>                | 7.55  | 0.19   |
|         |                                  | CO                             | 4.34  | 0.11   |
|         |                                  | PM                             | 0.25  | 0.01   |
|         |                                  | PM <sub>10</sub>               | 0.25  | 0.01   |
|         |                                  | PM <sub>2.5</sub>              | 0.25  | 0.01   |
|         |                                  | SO <sub>2</sub>                | 0.01  | <0.01  |
|         |                                  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01  |
|         |                                  | VOC                            | 0.40  | 0.0099 |
| PTFEAC  | Emergency Air Compressor         | NO <sub>x</sub>                | 1.87  | 0.05   |
|         |                                  | CO                             | 1.73  | 0.04   |
|         |                                  | PM                             | 0.10  | <0.01  |
|         |                                  | PM <sub>10</sub>               | 0.10  | <0.01  |
|         |                                  | PM <sub>2.5</sub>              | 0.10  | <0.01  |
|         |                                  | SO <sub>2</sub>                | 0.01  | <0.01  |

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|           |  |                                |       |         |
|-----------|--|--------------------------------|-------|---------|
|           |  | H <sub>2</sub> SO <sub>4</sub> | <0.01 | <0.01   |
|           |  | VOC                            | 0.10  | 0.0025  |
| FUG-TREAT | Pretreatment VOC Fugitives (6)         | VOC                            | 0.22  | 0.98    |
| FUG-CT    | Pretreatment Ammonia Fugitives (6)     | NH <sub>3</sub>                | 0.12  | 0.51    |
| PTFEGT-1  | Diesel Emergency Generator Tank 1      | VOC                            | <0.01 | 0.00058 |
| PTFEGT-2  | Diesel Emergency Generator Tank 2      | VOC                            | <0.01 | 0.00058 |
| PTFEGT-3  | Diesel Emergency Generator Tank 3      | VOC                            | <0.01 | 0.00058 |
| PTFEGT-4  | Diesel Emergency Generator Tank 4      | VOC                            | <0.01 | 0.00058 |
| PTFEGT-5  | Diesel Emergency Generator Tank 5      | VOC                            | <0.01 | 0.00058 |
| PTFEACT-1 | Diesel Emergency Air Compressor Tank 1 | VOC                            | <0.01 | 0.00058 |
| PTFFWPT-1 | Diesel Firewater Tank                  | VOC                            | 0.02  | 0.00042 |

- (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
- NO<sub>x</sub> - total oxides of nitrogen
- 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>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H<sub>2</sub>SO<sub>4</sub> - sulfuric acid mist
- H<sub>2</sub>S - hydrogen sulfide
- (4) Planned startup and shutdown (SS) lbs/hour emissions for all pollutants are authorized even if not specifically identified as SS.
- (5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emission rates for each source include planned SS emissions.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

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Date: March 24, 2015