

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 19592

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. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)  | Air Contaminant<br>Name (3) | Emission Rates * |       |
|---------------------------|---------------------|-----------------------------|------------------|-------|
|                           |                     |                             | lb/hr            | TPY** |
| Source 80                 | Regeneration Heater | VOC                         | 0.01             | 0.01  |
|                           |                     | NO <sub>x</sub>             | 0.74             | 3.23  |
|                           |                     | SO <sub>2</sub>             | 0.01             | 0.02  |
|                           |                     | PM                          | 0.06             | 0.25  |
|                           |                     | CO                          | 0.62             | 2.72  |
| Source 81                 | Hot Oil Heater      | VOC                         | 0.01             | 0.01  |
|                           |                     | NO <sub>x</sub>             | 1.14             | 5.00  |
|                           |                     | SO <sub>2</sub>             | 0.01             | 0.03  |
|                           |                     | PM                          | 0.06             | 0.21  |
|                           |                     | CO                          | 0.34             | 1.50  |
| Source 82                 | Amine Heater        | VOC                         | 0.01             | 0.01  |
|                           |                     | NO <sub>x</sub>             | 0.40             | 1.75  |
|                           |                     | SO <sub>2</sub>             | 0.01             | 0.01  |
|                           |                     | PM                          | 0.02             | 0.09  |
|                           |                     | CO                          | 0.08             | 0.35  |
| Source 83                 | Amine Heater        | VOC                         | 0.01             | 0.01  |
|                           |                     | NO <sub>x</sub>             | 0.40             | 1.75  |
|                           |                     | SO <sub>2</sub>             | 0.01             | 0.01  |
|                           |                     | PM                          | 0.02             | 0.09  |
|                           |                     | CO                          | 0.08             | 0.35  |
| Source 84                 | Amine Heater        | VOC                         | 0.01             | 0.01  |
|                           |                     | NO <sub>x</sub>             | 0.40             | 1.75  |
|                           |                     | SO <sub>2</sub>             | 0.01             | 0.01  |
|                           |                     | PM                          | 0.02             | 0.09  |
|                           |                     | CO                          | 0.08             | 0.35  |

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| Emission<br>Point No. (1) | Source<br>Name (2) | Air Contaminant<br>Name (3) | <u>Emission Rates *</u> |              |
|---------------------------|--------------------|-----------------------------|-------------------------|--------------|
|                           |                    |                             | <u>lb/hr</u>            | <u>TPY**</u> |

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| Emission<br>Point No. (1) | Source<br>Name (2)                         | Air Contaminant<br>Name (3) | Emission Rates * |       |
|---------------------------|--|-----------------------------|------------------|-------|
|                           |  |                             | lb/hr            | TPY** |
| Source 85                 | Incinerator                                | VOC                         | 0.01             | 0.10  |
|                           |  | NO <sub>x</sub>             | 0.62             | 2.71  |
|                           |  | SO <sub>2</sub>             | 8.70             | 38.12 |
|                           |  | H <sub>2</sub> S            | 0.13             |       |
|                           |  | PM                          | 0.01             | 0.04  |
|                           |  | CO                          | 0.13             | 0.55  |
|                           |  |                             |                  |       |
| Source 40                 | Emergency Flare (5)                        | VOC                         | 0.50             | 0.01  |
|                           |  | NO <sub>x</sub>             | 0.50             | 0.01  |
|                           |  | SO <sub>2</sub>             | 4.50             | 0.10  |
|                           |  | H <sub>2</sub> S            | 0.05             | 0.01  |
| Source 40                 | Emergency Flare (6)                        | H <sub>2</sub> S            | 2.00             | 8.70  |
| Fug-1                     | Plant Fugitives (4)                        | VOC                         | 5.45             | 23.86 |
| Eng-A6                    | Waukesha L7402GSI<br>Compressor A6 Engine  | VOC                         | 0.01             | 0.03  |
|                           |  | NO <sub>x</sub>             | 6.53             | 28.59 |
|                           |  | SO <sub>2</sub>             | 0.01             | 0.03  |
|                           |  | PM <sub>10</sub>            | 0.01             | 0.04  |
|                           |  | CO                          | 9.79             | 42.88 |
|                           |  |                             |                  |       |
| Eng-A7                    | Clark HLA-8<br>Compressor A7 Engine        | VOC                         | 0.26             | 1.12  |
|                           |  | NO <sub>x</sub>             | 8.82             | 38.63 |
|                           |  | SO <sub>2</sub>             | 0.01             | 0.04  |
|                           |  | PM <sub>10</sub>            | 0.09             | 0.39  |
|                           |  | CO                          | 22.05            | 96.58 |
|                           |  |                             |                  |       |
| Eng-A8                    | Caterpillar 3516LE<br>Compressor A8 Engine | VOC                         | 0.07             | 0.32  |
|                           |  | NO <sub>x</sub>             | 4.79             | 20.96 |
|                           |  | SO <sub>2</sub>             | 0.01             | 0.02  |
|                           |  | PM <sub>10</sub>            | 0.05             | 0.21  |
|                           |  | CO                          | 7.18             | 31.44 |
|                           |  |                             |                  |       |

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|---------------------------|---|-----------------------------|------------------|-------|
|                           |   |                             | lb/hr            | TPY** |
| Eng-B9                    | Ingersoll-Rand 412KVS<br>Compressor B9 Engine | VOC                         | 0.22             | 0.95  |
|                           |   | NO <sub>x</sub>             | 9.13             | 38.60 |
|                           |   | SO <sub>2</sub>             | 0.01             | 0.04  |
|                           |   | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |   | CO                          | 21.03            | 92.10 |
| Comp-B10                  | Waukesha L7042GSI<br>Refrigeration B10 Engine | VOC                         | 0.01             | 0.03  |
|                           |   | NO <sub>x</sub>             | 6.52             | 28.55 |
|                           |   | SO <sub>2</sub>             | 0.01             | 0.03  |
|                           |   | PM <sub>10</sub>            | 0.01             | 0.04  |
|                           |   | CO                          | 9.78             | 42.82 |
| Comp-B11                  | Waukesha L7042GSI<br>Refrigeration B11 Engine | VOC                         | 0.01             | 0.03  |
|                           |   | NO <sub>x</sub>             | 6.52             | 28.55 |
|                           |   | SO <sub>2</sub>             | 0.01             | 0.03  |
|                           |   | PM <sub>10</sub>            | 0.01             | 0.04  |
|                           |   | CO                          | 9.78             | 42.82 |
| Eng-B12                   | Caterpillar G3612LE<br>Compressor B12 Engine  | VOC                         | 1.99             | 8.68  |
|                           |   | NO <sub>x</sub>             | 14.71            | 64.41 |
|                           |   | SO <sub>2</sub>             | 0.02             | 0.07  |
|                           |   | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |   | CO                          | 22.06            | 96.62 |
| Eng-B13                   | Caterpillar G3612LE<br>Compressor B13 Engine  | VOC                         | 1.99             | 8.68  |
|                           |   | NO <sub>x</sub>             | 14.71            | 64.41 |
|                           |   | SO <sub>2</sub>             | 0.02             | 0.07  |
|                           |   | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |   | CO                          | 22.06            | 96.62 |
| Gen-1                     | Waukesha L7042GSI<br>Generator Engine         | VOC                         | 0.01             | 0.03  |
|                           |   | NO <sub>x</sub>             | 5.79             | 25.63 |

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| Emission<br>Point No. (1) | Source<br>Name (2)                    | Air Contaminant<br>Name (3) | Emission Rates * |       |
|---------------------------|---------------------------------------|-----------------------------|------------------|-------|
|                           |                                       |                             | lb/hr            | TPY** |
|                           |                                       | SO <sub>2</sub>             | 0.06             | 0.26  |
|                           |                                       | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |                                       | CO                          | 8.78             | 38.45 |
| Gen-2                     | Waukesha L7042GSI<br>Generator Engine | VOC                         | 0.01             | 0.03  |
|                           |                                       | NO <sub>x</sub>             | 5.79             | 25.63 |
|                           |                                       | SO <sub>2</sub>             | 0.06             | 0.26  |
|                           |                                       | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |                                       | CO                          | 8.78             | 38.45 |
|                           |                                       |                             |                  |       |
| Gen-3                     | Waukesha L7042GSI<br>Generator Engine | VOC                         | 0.01             | 0.03  |
|                           |                                       | NO <sub>x</sub>             | 5.79             | 25.63 |
|                           |                                       | SO <sub>2</sub>             | 0.06             | 0.26  |
|                           |                                       | PM <sub>10</sub>            | 0.01             | 0.01  |
|                           |                                       | CO                          | 8.78             | 38.45 |
|                           |                                       |                             |                  |       |
| Regen-2                   | Regeneration Heater No. 2             | VOC                         | 0.01             | 0.01  |
|                           |                                       | NO <sub>x</sub>             | 0.20             | 0.88  |
|                           |                                       | SO <sub>2</sub>             | 0.01             | 0.01  |
|                           |                                       | PM <sub>10</sub>            | 0.02             | 0.07  |
|                           |                                       | CO                          | 0.17             | 0.74  |
|                           |                                       |                             |                  |       |
| Regen-3                   | Regeneration Heater No. 3             | VOC                         | 0.01             | 0.01  |
|                           |                                       | NO <sub>x</sub>             | 0.37             | 1.61  |
|                           |                                       | SO <sub>2</sub>             | 0.01             | 0.01  |
|                           |                                       | PM <sub>10</sub>            | 0.03             | 0.13  |
|                           |                                       | CO                          | 0.31             | 1.36  |
|                           |                                       |                             |                  |       |
| Flare-2                   | Flare No. 2                           | VOC                         | 2.00             | 8.67  |
|                           |                                       | NO <sub>x</sub>             | 1.86             |       |
|                           |                                       | CO                          | 3.72             |       |
| Fug-2                     | Plant Fugitives (4)                   | VOC                         | 2.28             | 9.96  |

H<sub>2</sub>S 0.01

0.01

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

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- (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 - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
PM<sub>10</sub> - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.  
CO - carbon monoxide  
H<sub>2</sub>S - hydrogen sulfide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Except for continuous pilot gas combustion H<sub>2</sub>S emissions, the emission allowables are based on and the facility is limited by the following maximum operating schedule: 44 hrs/yr
- (6) When not in flare mode, the flare stack may be used to vent no more than the maximum emission rate of H<sub>2</sub>S specified.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or    Hrs/year

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

Dated \_\_\_\_\_