

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9395

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   |
| E-AB1                     | Loading Spot No. AB1 | PG                          | 1.14             | 0.54  |
| E-AB2                     | Loading Spot No. AB2 | PG                          | 1.14             | 0.54  |
| E-B801N                   | Hot Oil Heater       | VOC                         | 0.33             | 1.19  |
|                           |                      | NO <sub>x</sub>             | 5.92             | 21.60 |
|                           |                      | CO                          | 4.97             | 18.14 |
|                           |                      | PM                          | 0.45             | 1.64  |
| E-B801S                   | Hot Oil Heater       | VOC                         | 0.33             | 1.19  |
|                           |                      | NO <sub>x</sub>             | 5.92             | 21.60 |
|                           |                      | CO                          | 4.97             | 18.14 |
|                           |                      | PM                          | 0.45             | 1.64  |
| E-B901                    | Process Heater       | VOC                         | 0.09             | 0.34  |
|                           |                      | NO <sub>x</sub>             | 1.72             | 6.27  |
|                           |                      | CO                          | 1.44             | 5.27  |
|                           |                      | PM                          | 0.13             | 0.48  |
| E-B902A                   | Process Heater       | VOC                         | 0.08             | 0.29  |
|                           |                      | NO <sub>x</sub>             | 1.47             | 5.35  |
|                           |                      | CO                          | 1.23             | 4.49  |
|                           |                      | PM                          | 0.11             | 0.41  |
| E-B902B                   | Process Heater       | VOC                         | 0.08             | 0.28  |
|                           |                      | NO <sub>x</sub>             | 1.38             | 5.03  |
|                           |                      | CO                          | 1.16             | 4.22  |
|                           |                      | PM                          | 0.10             | 0.38  |

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|---------------------------|-------------------------|-----------------------------|------------------|--------|
|                           |                         |                             | lb/hr            | TPY    |
| E-B902C                   | Process Heater          | VOC                         | 0.07             | 0.24   |
|                           |                         | NO <sub>x</sub>             | 1.21             | 4.43   |
|                           |                         | CO                          | 1.02             | 3.72   |
|                           |                         | PM                          | 0.09             | 0.34   |
| E-B1550                   | Flare                   | VOC                         | 114.49           | 95.20  |
|                           |                         | NO <sub>x</sub>             | 32.09            | 34.97  |
|                           |                         | CO                          | 163.53           | 178.22 |
|                           |                         | Acetone                     | 5.60             | 13.14  |
| E-B1501A                  | Emergency Flare Plant 1 | NO <sub>x</sub>             | 0.01             | 0.04   |
|                           |                         | CO                          | 0.05             | 0.20   |
| E-B1501B                  | Emergency Flare Plant 2 | NO <sub>x</sub>             | 0.01             | 0.06   |
|                           |                         | CO                          | 0.07             | 0.32   |
| E-B1501C                  | Emergency Flare Plant 3 | NO <sub>x</sub>             | 0.01             | 0.06   |
|                           |                         | CO                          | 0.07             | 0.32   |
| E-B1751                   | Hot Oil Heater          | VOC                         | 0.08             | 0.29   |
|                           |                         | NO <sub>x</sub>             | 1.44             | 5.26   |
|                           |                         | CO                          | 1.21             | 4.42   |
|                           |                         | PM                          | 0.11             | 0.40   |
| E-B2890                   | Hot Oil Heater          | VOC                         | 0.43             | 1.57   |
|                           |                         | NO <sub>x</sub>             | 7.82             | 28.54  |
|                           |                         | CO                          | 6.57             | 23.97  |
|                           |                         | PM                          | 0.59             | 2.17   |
| E-BP1-D                   | Tank No. BP1-D          | Diesel                      | 0.08             | 0.0003 |
| E-C10942                  | Tank No. C10942         | Inhibitor                   | 6.46             | 0.04   |
| E-C10943                  | Tank No. C10943         | Dispersant                  | 5.86             | 0.02   |

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|---------------------------|-----------------------|-----------------------------|-------------------------|-------|
|                           |                       |                             | lb/hr                   | TPY   |
| E-C10944                  | Tank No. C10944       | Inhibitor                   | 6.46                    | 0.04  |
| E-C10945                  | Tank No. C10945       | Dispersant                  | 5.86                    | 0.02  |
| E-C15038                  | Tank No. 15038        | Dispersant                  | 5.86                    | 0.02  |
| E-C15039                  | Tank No. 15039        | Inhibitor                   | 9.50                    | 0.03  |
| E-CD4A                    | Loading Spot No. CD4A | DPG                         | 0.20                    | 0.06  |
| E-CD5B                    | Loading Spot No. CD5B | PG                          | 0.47                    | 0.23  |
| E-CD6A                    | Loading Spot No. CD6A | PG                          | 0.47                    | 0.23  |
| E-F201                    | Tank No. 201          | VOC                         | 2.77                    | 0.003 |
| E-F225                    | Tank No. 225          | VOC                         | 2.77                    | 0.002 |
| E-F306                    | Tank No. 306          | VOC                         | 2.77                    | 0.002 |
| E-F322                    | Tank No. 322          | VOC                         | 2.77                    | 0.003 |
| E-F395                    | Tank No. 395          | VOC                         | 2.77                    | 0.003 |
| E-F396                    | Tank No. 396          | VOC                         | 2.77                    | 0.003 |
| E-F398                    | Tank No. 398          | VOC                         | 2.77                    | 0.003 |
| E-F399                    | Tank No. 399          | VOC                         | 2.77                    | 0.003 |
| E-F400                    | Tank No. 400          | VOC                         | 2.77                    | 0.003 |
| E-F401                    | Tank No. 401          | VOC                         | 2.77                    | 0.003 |

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|---------------------------|-----------------------|-----------------------------|-------------------------|---------|
|                           |                       |                             | lb/hr                   | TPY     |
| E-F402                    | Tank No. 402          | VOC                         | 2.77                    | 0.002   |
| E-F403                    | Tank No. 403          | VOC                         | 2.77                    | 0.003   |
| E-F404                    | Tank No. 404          | VOC                         | 2.77                    | 0.002   |
| E-F410                    | Tank No. 410          | VOC                         | 2.77                    | 0.003   |
| E-F463                    | Tank No. 463          | VOC                         | 2.77                    | 0.003   |
| E-F509                    | Tank No. 509          | VOC                         | 2.77                    | 0.003   |
| E-F551                    | Tank No. F551<br>0.01 | Propylene Carbonate         |                         | 0.02    |
| E-F711                    | Tank No. 711          | VOC                         | 2.77                    | 0.003   |
| E-F1005B                  | Tank No. F1005B       | PG                          | 0.35                    | 0.00002 |
| E-F1005C                  | Tank No. F1005C       | PG                          | 0.35                    | 0.00003 |
| E-F1101A                  | Tank No. F1101A       | DPG                         | 0.20                    | 0.01    |
| E-F1101B                  | Tank No. F1101B       | DPG                         | 0.20                    | 0.01    |
| E-F1101C                  | Tank No. F1101C       | PM                          | 4.12                    | 0.81    |
| E-F1101D                  | Tank No. F1101D       | PM                          | 4.12                    | 0.81    |
| E-F1102A                  | Tank No. F1102A       | PG                          | 7.41                    | 0.20    |
| E-F1102B                  | Tank No. F1102B       | PG                          | 7.41                    | 0.20    |
| E-F1102C                  | Tank No. F1102C       | PG                          | 7.41                    | 0.21    |

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|---------------------------|--------------------|-----------------------------|-------------------------|--------|
|                           |                    |                             | lb/hr                   | TPY    |
| E-F1102D                  | Tank No. F1102D    | PG                          | 7.41                    | 0.15   |
| E-F1103A                  | Tank No. F1103A    | DPM                         | 0.34                    | 0.04   |
| E-F1103B                  | Tank No. F1103B    | DPM                         | 0.34                    | 0.04   |
| E-F1103C                  | Tank No. F1103C    | TPG                         | 0.01                    | 0.002  |
| E-F1103D                  | Tank No. F1103D    | TPG                         | 0.01                    | 0.002  |
| E-F1104A                  | Tank No. F1104A    | PG                          | 4.95                    | 0.01   |
| E-F1104B                  | Tank No. F1104B    | PG                          | 4.95                    | 0.01   |
| E-F1104C                  | Tank No. F1104C    | DPG                         | 0.21                    | 0.02   |
| E-F1105A                  | Tank No. F1105A    | PG                          | 8.66                    | 0.74   |
| E-F1105B                  | Tank No. F1105B    | PG                          | 8.66                    | 0.74   |
| E-F1108A                  | Tank No. F1108A    | DPM Bottoms                 | 0.20                    | 0.09   |
| E-F1109                   | Tank No. F1109     | TPG Bottoms                 | 0.05                    | 0.01   |
| E-F1110                   | Tank No. F1110     | DPG                         | 0.21                    | 0.01   |
| E-F1164                   | Tank No. F1164     | DPM                         | 11.06                   | 0.20   |
| E-F1204                   | Tank No. F1204     | Caustic                     | 0.93                    | 0.02   |
| E-F1205                   | Tank No. F1205     | Caustic                     | 5.09                    | 0.35   |
| E-F1280                   | Tank No. F1280     | TPG                         | 0.04                    | 0.004  |
| E-F1411                   | Tank No. F1411     | Diesel                      | 0.04                    | 0.0002 |

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|---------------------------|--------------------|--------------------------------|------------------|---------|
|                           |                    |                                | lb/hr            | TPY     |
| E-F1412                   | Tank No. F1412     | Diesel                         | 0.04             | 0.0002  |
| E-F1413                   | Tank No. F1413     | Diesel                         | 0.08             | 0.0001  |
| E-F1414                   | Tank No. F1414     | Diesel                         | 0.08             | 0.0001  |
| E-F1415                   | Tank No. F1415     | Diesel                         | 0.08             | 0.0001  |
| E-F1416                   | Tank No. F1416     | Gasoline                       | 1.00             | 0.005   |
| E-F1418                   | Tank No. F1418     | Diesel                         | 0.45             | 0.002   |
| E-F1419                   | Tank No. F1419     | Gasoline                       | 80.29            | 0.61    |
| E-F1420                   | Tank No. F1420     | Diesel                         | 0.04             | 0.0002  |
| E-F1455A                  | Tank No. F1455A    | Diesel                         | 0.04             | 0.0002  |
| E-F1455B                  | Tank No. F1455B    | Diesel                         | 0.04             | 0.0002  |
| E-F1457A                  | Tank No. F1457A    | Diesel                         | 0.04             | 0.0002  |
| E-F1457B                  | Tank No. F1457B    | Diesel                         | 0.04             | 0.0002  |
| E-F1503B                  | Tank No. F1503B    | Caustic                        | 1.53             | 0.02    |
| E-F1503C                  | Tank No. F1503C    | Caustic                        | 1.53             | 0.01    |
| E-F1675                   | Tank No. F1675     | H <sub>2</sub> SO <sub>4</sub> | 0.005            | 0.00002 |
| E-F1740                   | Tank No. F1740     | Tert-butanol                   | 18.16            | 1.36    |
| E-F1801A                  | Tank No. F1801A    | H <sub>2</sub> SO <sub>4</sub> | 0.005            | 0.00001 |

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|---------------------------|---|--------------------------------|------------------|----------|
|                           |   |                                | lb/hr            | TPY      |
| E-F1801D                  | Tank No. F1801D                           | H <sub>2</sub> SO <sub>4</sub> | 0.005            | 0.00001  |
| E-F2340                   | Tank No. F2340                            | TBA                            | 16.03            | 1.96     |
| E-F2351                   | Hopper No. F2351                          | PM                             | 0.70             | 0.01     |
| E-F2835                   | Tank No. F2835                            | PG                             | 4.12             | 0.71     |
| E-F2866                   | Tank No. F2866                            | PG                             | 0.16             | 0.04     |
| E-F3342A                  | Tank No. F3342A                           | Catalyst                       | 0.12             | 0.0004   |
|                           |   | PM                             | 0.70             | 0.02     |
| E-F3342B                  | Tank No. F3342B                           | Catalyst                       | 0.12             | 0.0004   |
|                           |   | PM                             | 0.70             | 0.02     |
| E-FTOTE                   | Tank No. FTOTE                            | H <sub>2</sub> SO <sub>4</sub> | 0.005            | 0.000001 |
| E-FUGMNT                  | Solvent Degreasing (4)                    | VOC                            | 0.01             | 0.03     |
| E-FUGPNT                  | Surface Coating/<br>Abrasive Blasting (4) | VOC                            | 2.80             | 0.67     |
|                           |   | PM                             | 3.26             | 0.30     |
|                           |   | PM <sub>10</sub>               | 0.99             | 0.11     |
| E-FXXX1                   | Tank No. XXX1                             | Bleach                         | 4.98             | 0.07     |
| E-FXXX2                   | Tank No. XXX2                             | Bleach                         | 4.98             | 0.07     |
| E-FXXX3                   | Tank No. XXX3                             | Bleach                         | 4.98             | 0.07     |
| E-LAB                     | Lab Exhaust Vent                          | VOC                            | 5.20             | 1.15     |
| E-LR4C                    | Loading Spot No. LR4C                     | TPG                            | 0.08             | 0.004    |

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| Emission<br>Point No. (1) | Source<br>Name (2)                   | Air Contaminant<br>Name (3) | <u>Emission Rates *</u> |       |
|---------------------------|--------------------------------------|-----------------------------|-------------------------|-------|
|                           |                                      |                             | lb/hr                   | TPY   |
| E-LR7                     | Loading Spot No. LR7<br>0.01         | Propylene Carbonate         |                         | 0.08  |
| E-P1FUG                   | Fugitive Area No. P1FUG (4)<br>57.90 | VOC                         |                         | 13.22 |
| E-P2FUG                   | Fugitive Area No. P2FUG (4)<br>64.95 | VOC                         |                         | 14.83 |
| E-P3FUG                   | Fugitive Area No. P3FUG (4)<br>42.78 | VOC                         |                         | 9.77  |
| E-P4FUG                   | Fugitive Area No. P4FUG (4)<br>12.81 | VOC                         |                         | 2.93  |
| E-P5FUG                   | Fugitive Area No. P5FUG (4)<br>12.62 | VOC                         |                         | 2.88  |
| E-P6FUG                   | Fugitive Area No. P6FUG (4)<br>5.97  | VOC                         |                         | 1.36  |
| E-P8FUG                   | Fugitive Area No. P8FUG (4)<br>2.00  | VOC                         |                         | 0.46  |
| E-PL-D                    | Tank No. E-PL-D                      | Diesel                      | 0.08                    | 0.001 |
| E-PL-G                    | Tank No. E-PL-G                      | Gasoline                    | 20.07                   | 0.23  |
| E-T5                      | Loading Spot No. T5                  | DPG                         | 0.14                    | 0.01  |
| E-T10                     | Loading Spot No. T10                 | PG                          | 0.87                    | 0.30  |
| E-T12                     | Loading Spot No. T12                 | PG                          | 0.47                    | 0.12  |
| E-T23                     | Loading Spot No. T23                 | TPG Bottoms                 | 1.90                    | 0.05  |
| E-T25                     | Loading Spot No. T25                 | Spent Caustic               | 0.0002                  | 0.001 |
| E-U1801                   | BPI Cooling Tower (4)                | VOC                         | 1.09                    | 3.97  |
|                           |                                      | Acetone                     | 0.02                    | 0.08  |



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|         |                                     |         |      |       |
|---------|-------------------------------------|---------|------|-------|
| E-U1802 | BP11 Cooling Tower (4)              | VOC     | 1.73 | 6.31  |
|         |                                     | Acetone | 0.04 | 0.13  |
| E-U1803 | BP111 Cooling Tower (4)             | VOC     | 1.31 | 4.78  |
|         |                                     | Acetone | 0.03 | 0.10  |
| E-V2000 | Soil Treatment Vault                | TBA     | 0.20 | 0.01  |
|         |                                     | Acetone | 0.02 | 0.001 |
| E-V3000 | Affected Soil Storage Vault<br>1.36 |         | TBA  | 2.92  |

- (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) PG - propylene glycol  
VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
PM<sub>10</sub> - particulate matter, 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.  
  
DPG - dipropylene glycol  
DPM - dipropylene glycol mono-methyl ether  
TPG - tripropylene glycol  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
TBA - tert-butyl alcohol
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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

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

\_\_\_\_\_Hrs/day    \_\_\_\_\_Days/week    \_\_\_\_\_Weeks/year    or    8,760  
Hrs/year

Dated\_\_\_\_\_