

# Emission Sources, Emission Caps, and Individual Emission Limitations

## Flexible Permit Numbers 6308 and PSDTX137M2

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) |
| Emission Rate Caps     |                 |                          |                |         |
|                        |                 | NO <sub>x</sub>          | 369.85         | 250.80  |
|                        |                 | CO                       | 278.97         | 455.51  |
|                        |                 | SO <sub>2</sub>          | 252.14         | 300.20  |
|                        |                 | H <sub>2</sub> S         | 6.62           | 13.49   |
|                        |                 | Ozone                    | 15.51          | 27.48   |
|                        |                 | PM                       | 47.99          | 174.40  |
|                        |                 | PM <sub>10</sub>         | 47.65          | 172.90  |
|                        |                 | PM <sub>2.5</sub>        | 47.37          | 171.70  |
|                        |                 | VOC                      | 316.93         | 445.35  |
|                        |                 | Toluene                  | 0.98           | 2.16    |
|                        |                 | Xylene                   | 0.97           | 1.27    |
|                        |                 | Benzene                  | 0.60           | 0.44    |
|                        |                 | NH <sub>3</sub>          | 1.09           | 0.96    |
|                        |                 | HCN                      | 17.50          | 63.90   |
|                        |                 | NaHSO <sub>3</sub>       | 0.72           | 0.31    |

| Emission Point No. (1)                                     | Source Name (2)            | Air Contaminant Name (3) | Emission Rates |         |
|--|----------------------------|--------------------------|----------------|---------|
|  |                            |                          | lbs/hour       | TPY (4) |
| Maintenance, Startup, and Shutdown (MSS) Emission Caps (6) |                            |                          |                |         |
|  |                            | VOC                      | 1,050.67       | 25.98   |
|  |                            | NOx                      | 321.29         | 15.49   |
|  |                            | CO                       | 1,820.15       | 25.84   |
|  |                            | SO <sub>2</sub>          | 1,373.03       | 30.81   |
|  |                            | H <sub>2</sub> S         | 4.12           | 0.28    |
|  |                            | PM                       | 17.43          | 0.83    |
|  |                            | PM <sub>10</sub>         | 13.90          | 0.32    |
|  |                            | PM <sub>2.5</sub>        | 13.90          | 0.32    |
|  |                            | HCl                      | 0.58           | 0.03    |
| Individual Emission Rate Limits                            |                            |                          |                |         |
| 35,36  | BTX Rx No. 1 Heater        | NOx                      | 4.95           | 21.70   |
|  |                            | CO                       | 5.50           | 24.10   |
|  |                            | SO <sub>2</sub>          | 3.53           | 4.63    |
|  |                            | PM                       | 0.82           | 3.61    |
|  |                            | PM <sub>10</sub>         | 0.82           | 3.61    |
|  |                            | PM <sub>2.5</sub>        | 0.82           | 3.61    |
|  |                            | VOC                      | 0.60           | 2.61    |
| 37,38  | BTX RX No. 2 Heater        | NOx                      | 5.40           | 23.70   |
|  |                            | CO                       | 6.00           | 26.30   |
|  |                            | SO <sub>2</sub>          | 3.85           | 5.06    |
|  |                            | PM                       | 0.90           | 3.93    |
|  |                            | PM <sub>10</sub>         | 0.90           | 3.93    |
|  |                            | PM <sub>2.5</sub>        | 0.90           | 3.93    |
|  |                            | VOC                      | 0.65           | 2.84    |
| 33,34  | BTX Deptentanizer Reboiler | NOx                      | 2.48           | 10.80   |
|  |                            | CO                       | 2.75           | 12.00   |
|  |                            | SO <sub>2</sub>          | 1.76           | 2.32    |
|  |                            | PM                       | 0.41           | 1.80    |
|  |                            | PM <sub>10</sub>         | 0.41           | 1.80    |
|  |                            | PM <sub>2.5</sub>        | 0.41           | 1.80    |
|  |                            | VOC                      | 0.30           | 1.30    |
| 120  | Isom Splitter Reboiler     | NOx                      | 1.60           | 7.01    |
|  |                            | CO                       | 3.28           | 14.40   |
|  |                            | SO <sub>2</sub>          | 1.28           | 1.69    |
|  |                            | PM                       | 0.30           | 1.30    |
|  |                            | PM <sub>10</sub>         | 0.30           | 1.30    |
|  |                            | PM <sub>2.5</sub>        | 0.30           | 1.30    |
|  |                            | VOC                      | 0.22           | 0.94    |
| F-121  | Isom Fugitives (5)         | VOC                      | 2.63           | 11.52   |

|       |                                    |     |      |       |
|-------|------------------------------------|-----|------|-------|
| F-58  | Butadiene Saturation Fugitives (5) | VOC | 1.05 | 4.60  |
| F-123 | MTBE Fugitives (5)                 | VOC | 2.42 | 10.60 |

- (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
- CO - carbon monoxide
- Cl<sub>2</sub> - chlorine
- H<sub>2</sub>S - hydrogen sulfide
- HCl - hydrogen chloride
- NH<sub>3</sub> - ammonia
- HCN - hydrogen cyanide
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) MSS activities and emission points are identified in Attachment C.

Date: Xxx xx, 2021

Emission Sources Summary Table for Sources Contributing to Emissions Caps

| Emission Point Number | Facility Identification Number | Description               | CO | NOx | PM <sub>10</sub><br>PM <sub>2.5</sub> | SO <sub>2</sub> | VOC | Toluene | Xylene | Benzene | H <sub>2</sub> S | O <sub>3</sub> | NH <sub>3</sub> | HCN | NaHSO <sub>3</sub> |
|-----------------------|--------------------------------|---------------------------|----|-----|---------------------------------------|-----------------|-----|---------|--------|---------|------------------|----------------|-----------------|-----|--------------------|
| 67,68                 | E23H301B                       | DIH B Heater              | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 110                   | E0310F101                      | FCCU II Charge Heater     | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 65A                   | E23H101A                       | Crude II Charge Heater A  | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 80                    | E27H1                          | DHT-I Charge Heater       | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 81                    | E27H201                        | DHT-I Fractionator Heater | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 74R                   | E25H10                         | DHT-K Charge Heater       | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 77                    | E26F11                         | DHT-D Charge Heater       | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 101,102               | E28H101                        | Hydrobon Charge Heater    | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 99,100                | E28H102                        | Hydrobon Reboiler         | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 25                    | E20H1                          | Sulfolane Heater          | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| E29H417               | E29H417                        | SRU No. 1 Heater          | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| FL-125                |                                | WWTP VCU                  | X  | X   | X                                     | X               | X   |         |        |         |                  |                |                 |     |                    |
| 111                   | FG SCRUB                       | FCCU II Scrubber          | X  | X   | X                                     | X               | X   |         |        |         |                  | X              | X               | X   |                    |
| S-84                  | E29F511                        | SRU No. 1 TGI             | X  | X   | X                                     | X               | X   |         |        |         | X                |                |                 |     |                    |
| S-85                  | E46H300                        | SRU No. 2 TGI             | X  | X   | X                                     | X               | X   |         |        |         | X                |                |                 |     |                    |
| FL-97                 | E01FL100                       | Main Flare                | X  | X   |                                       | X               | X   |         |        |         | X                |                |                 |     |                    |
| FL-28                 | E01FL101                       | West Flare                | X  | X   |                                       | X               | X   |         |        |         | X                |                |                 |     |                    |
| FL-118                | E12FL101                       | Marine VCU                | X  | X   | X                                     | X               | X   |         |        |         | X                |                |                 |     |                    |
| C-107                 | SULFOLANEC                     | Sulfolane Cooling Tower   |    |     | X                                     |                 | X   |         |        |         | X                |                |                 |     |                    |
| C-108                 | BTX PLA C                      | BTX Cooling Tower         |    |     | X                                     |                 | X   |         |        |         | X                |                |                 |     |                    |
| C-109                 | CR 2 COOL                      | Crude II Cooling Tower    |    |     | X                                     |                 | X   |         |        |         | X                |                |                 |     |                    |
| C-110                 | HBON COOL                      | Hydrobon Cooling Tower    |    |     | X                                     |                 | X   |         |        |         | X                |                |                 |     |                    |
| C-113                 | FCC 2 COOL                     | FCCU II Cooling Tower     |    |     | X                                     |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-112                 | F-112                          | FCCU II Fugitives         |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-53                  | F-53                           | Sulfolane Fugitives       |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-30                  | F-30                           | Terminal 3 Fugitives      |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-61                  | F-61                           | Crude II/DIH Fugitives    |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-98                  | F-98                           | Hydrobon Fugitives        |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |
| F-55                  | F-55                           | BTX Platformer Fugitives  |    |     |                                       |                 | X   |         |        |         | X                |                |                 |     |                    |

Emission Sources Summary Table for Sources Contributing to Emissions Caps

|           |            |                                  |  |  |  |  |   |   |   |   |   |  |  |  |  |
|-----------|------------|----------------------------------|--|--|--|--|---|---|---|---|---|--|--|--|--|
| F-26      | F-26       | Terminal 2 Fugitives             |  |  |  |  | X |   |   |   | X |  |  |  |  |
| 90,91,92P | SHIP&BARGE | Marine Dock Component Fugitives  |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-118     | F-118      | MVCU Equipment Fugitives         |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-79      | F-79       | DHT-I Fugitives                  |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-72      | F-72       | DHT-K Fugitives                  |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-76      | F-76       | DHT-D Fugitives                  |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-WWTP    | F-WWTP     | WWTP Fugitives                   |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-FGS     | P-FGS      | Fuel Gas Supply System Fugitives |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-86      | TRUCK RACK | Truck Rack Fugitives             |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-97      | F-97       | Flare System Fugitives           |  |  |  |  | X |   |   |   |   |  |  |  |  |
| F-SRU1    | SULFUR REC | SRU No. 1 Fugitives              |  |  |  |  | X |   |   |   | X |  |  |  |  |
| F-SRU2    | SULFUR REC | SRU No. 2 Fugitives              |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E04V16    | E04V16     | Tank E04V16                      |  |  |  |  | X |   |   |   |   |  |  |  |  |
| E11TK323  | E11TK323   | Tank E11TK323                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TK325  | E11TK325   | Tank E11TK325                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TK329  | E11TK329   | Tank E11TK329                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TK331  | E11TK331   | Tank E11TK331                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKR40  | E11TKR40   | Tank E11TKR40                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS21  | E11TKS21   | Tank E11TKS21                    |  |  |  |  | X | X | X |   | X |  |  |  |  |
| E11TKS23  | E11TKS23   | Tank E11TKS23                    |  |  |  |  | X | X | X |   | X |  |  |  |  |
| E11TKS30  | E11TKS30   | Tank E11TKS30                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS31  | E11TKS31   | Tank E11TKS31                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS32  | E11TKS32   | Tank E11TKS32                    |  |  |  |  | X | X | X |   | X |  |  |  |  |
| E11TKS41  | E11TKS41   | Tank E11TKS41                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS42  | E11TKS42   | Tank E11TKS42                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS43  | E11TKS43   | Tank E11TKS43                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS6   | E11TKS6    | Tank E11TKS6                     |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS7   | E11TKS7    | Tank E11TKS7                     |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E11TKS8   | E11TKS8    | Tank E11TKS8                     |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E12TK116  | E12TK116   | Tank E12TK116                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E12TK117  | E12TK117   | Tank E12TK117                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E12TK145  | E12TK145   | Tank E12TK145                    |  |  |  |  | X |   |   | X | X |  |  |  |  |
| E12TK146  | E12TK146   | Tank E12TK146                    |  |  |  |  | X |   |   | X | X |  |  |  |  |
| E14TK526  | E14TK526   | Tank E14TK526                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E14TK528  | E14TK528   | Tank E14TK528                    |  |  |  |  | X |   |   |   | X |  |  |  |  |
| E14TK530  | E14TK530   | Tank E14TK530                    |  |  |  |  | X |   |   |   | X |  |  |  |  |

Emission Sources Summary Table for Sources Contributing to Emissions Caps

|                   |            |                                |   |   |   |   |   |  |  |  |   |  |  |  |   |
|-------------------|------------|--------------------------------|---|---|---|---|---|--|--|--|---|--|--|--|---|
| <b>E14TK530CC</b> | E14TK530CC | E14TK530 Overflow Pipe         |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>E18TK110</b>   | E18TK110   | Tank E18TK110                  |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>E18TK111</b>   | E18TK111   | Tank E18TK111                  |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>E18TK112</b>   | E18TK112   | Tank E18TK112                  |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>E18TKCS3</b>   | E18TKCS3   | Tank E18TKCS3                  |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>E20V21A</b>    | E20V21A    | Tank E20V21A                   |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E20V22</b>     | E20V22     | Tank E20V22                    |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E20V4</b>      | E20V4      | Tank E20V4                     |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E29T511R</b>   | E29T511R   | Tank E29T511R                  |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>PERMSCAV</b>   | PERMSCAV   | FCCU II H2S Scavenger Tote     |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>H2SCAV</b>     | H2SCAV     | WWTP H2S Scavenger Tote        |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>TkNaHSO3</b>   | TkNaHSO3   | Sodium Bisulfite Tank          |   |   |   |   |   |  |  |  |   |  |  |  | X |
| <b>E13TK39</b>    | E13TK39    | Diesel Tank for E13TK39        |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E13TK40</b>    | E13TK40    | Diesel Tank for E13TK40        |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E13TK41</b>    | E13TK41    | Diesel Tank for E13TK41        |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E13P45</b>     | E13P45     | Firewater Diesel Engine E13P45 | X | X | X | X | X |  |  |  |   |  |  |  |   |
| <b>E13P46</b>     | E13P46     | Firewater Diesel Engine E13P46 | X | X | X | X | X |  |  |  |   |  |  |  |   |
| <b>E13P4</b>      | E13P4      | Firewater Diesel Engine E13P4  | X | X | X | X | X |  |  |  |   |  |  |  |   |
| <b>LOADFUG</b>    | MARINE     | Uncontrolled Marine Loading    |   |   |   |   | X |  |  |  | X |  |  |  |   |
| <b>PROPFRZTST</b> | PROPFRZTST | Propane Freeze Tests           |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E14TK503A</b>  | E14TK503A  | Aeration Basin No. 1           |   |   |   |   | X |  |  |  |   |  |  |  |   |
| <b>E14TK503B</b>  | E14TK503B  | Aeration Basin No. 2           |   |   |   |   | X |  |  |  |   |  |  |  |   |