# EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

#### Flexible Permit Numbers 16989 and PSD-TX-794

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 Point No. (1)        | Source<br>Name (2)       | Air Contaminant Names (3)  |
|-------------------------------|--------------------------|--|
| Aromatics and Olefins Pla     | ant, Aromatics Unit (AU) |  |
| <b>Cooling Tower Sources</b>  |                          |  |
| AUCHXUCLTR                    | AU Cooling Tower         | VOC, Benzene, Toluene  |
| Flares                        |                          |  |
| AUFLARE-1                     | AU Flare                 | CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC, Benzene,<br>Toluene |
| AUFLARE-2                     | CHX Loading Rack Flare   | CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC, Benzene,<br>Toluene |
| <b>Process Fugitive Areas</b> |                          |  |
| AUFUGS                        | AU Fugitives             | VOC, Benzene, Toluene  |
| <b>Combustion Sources</b>     |                          |  |
| AUHEATER-1                    | Clay Tower Heater        | CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC   |
| Miscellaneous Sources         |                          |  |
| AUWWFUGS                      | AU Wastewater Fugitives  | VOC, Benzene, Toluene  |

VOC, Benzene, Toluene

|  | AIR  | CONTAMINANTS DATA   |
|--|--|---|
| Emission<br>Point No. (1)  | Source A   | Air Contaminant<br>Names (3)  |
| Tanks  |  |   |
| AUT33979<br>AUT4881<br>AUT4882<br>AUT4883<br>AUT4884<br>AUT4930<br>Aromatics and Olefins Pla | Tank 33979 Tank 4881 Tank 4882 Tank 4883 Tank 4884 Tank 4930  Int, Cyclohexane Unit (CHX | VOC, Benzene, Toluene |
| <b>Process Fugitive Areas</b>  |  |   |
| CHXUFUGS   | Cyclohexane Unit Fugitives   | s VOC, Benzene, Toluene   |
| Loading  |  |   |
| CHXUTCLR   | CHXU Uncaptured loading  | VOC, Benzene, Toluene   |

# **Aromatics and Olefins Plant, Light Olefins Unit (LOU)**

fugitives

# **Cooling Tower Sources**

| LOUCOOLTWR                    | LOU Cooling Tower  | VOC, Benzene, Toluene                             |
|-------------------------------|--------------------|---|
| Flares                        |                    |   |
| LOUFLARE                      | LOU Elevated Flare | $CO$ , $NO_x$ , $SO_2$ , $VOC$ , Benzene, Toluene |
| <b>Process Fugitive Areas</b> |                    |   |

LOU Fugitives

#### **Combustion Sources**

LOUFUGS

# AIR CONTAMINANTS DATA

| Emission<br>Point No. (1)  | Source<br>Name (2)  | Air Contaminant<br>Names (3)   |
|--|---|--|
| LOUBOILER1 LOUBOILER10 LOUBOILER11 LOUBOILER2 LOUBOILER3 LOUBOILER4 LOUBOILER5 LOUBOILER6 LOUBOILER7 LOUBOILER8 LOUBOILER9 LOUHEATER1 LOUHEATER2 | Cracking Furnace A Superheater B Cracking Furnace H Cracking Furnace B Cracking Furnace C Cracking Furnace D Cracking Furnace E Cracking Furnace F Cracking Furnace G Ethane Cracking Furnace Superheater A GHU Regeneration Heate PHU Heater | CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC |
| Loading  |   |  |
| LOUPFOLR   | LOU loading rack  | VOC, Benzene, Toluene  |
| Miscellaneous Sources  |   |  |
| ABRSVCLEAN<br>AOMPANTFUG<br>DGREASEOPS<br>LOUAPIVO   | Abrasive Blasting Area<br>Plant Painting Operations<br>Degreasing Operations<br>API Thermal Oxidizer  | PM <sub>10</sub><br>VOC, Benzene, Toluene<br>VOC, Benzene, Toluene<br>CO, NO <sub>x</sub> , PM <sub>10</sub> , SO <sub>2</sub> , VOC, Benzene,<br>Toluene  |
| LOUVENTDD1<br>LOUVENTDD2<br>LOUCARBON1   | LOU Decoking Drum No. 2<br>LOU Decoking Drum No. 2<br>API Carbon Adsorption<br>System   | 1 CO, PM <sub>10</sub>   |
| AOARVS   | Analyzer, Atmospheric<br>Reference Valve  | VOC, Benzene, Toluene, $PM_{10}$ , $CO$ , $NO_x$   |

# Tanks

#### AIR CONTAMINANTS DATA

| Emission   | Source               | Air Contaminant                            |  |
|--|----------------------|--|--|
| Point No. (1)                                      | Name (2)             | Names (3)                                  |  |
| 10T-112  | Tank 112             | VOC, Benzene, Toluene                      |  |
| 10T-113  | Tank 113             | VOC, Benzene, Toluene                      |  |
| LOUT1596   | Tank 1596            | VOC, Benzene, Toluene                      |  |
| LOUT1597   | Tank 1597            | VOC, Benzene, Toluene                      |  |
| LOUT33752  | Tank 33752           | VOC, Benzene, Toluene                      |  |
| LOUT33753  | Tank 33753           | VOC, Benzene, Toluene                      |  |
| LOUT33755  | Tank 33755           | VOC, Benzene, Toluene                      |  |
| LOUT33756  | Tank 33756           | VOC, Benzene, Toluene                      |  |
| LOUT33758  | Tank 33758           | VOC, Benzene, Toluene                      |  |
| LOUT33759  | Tank 33759           | VOC, Benzene, Toluene                      |  |
| LOUT33760  | Tank 33760           | VOC, Benzene, Toluene                      |  |
| Aromatics and Olefins Plant, Miscellaneous Sources |                      |  |  |
| Fuel Dispensing Units and                          | Associated Tanks (5) | VOC, Benzene, Toluene                      |  |
| Miscellaneous Chemical St                          | orage Tanks (5)      | VOC, Benzene, Toluene                      |  |
| Diesel Internal Combustion                         | Engines (5)          | $CO$ , $NO_x$ , $PM_{10}$ , $SO_2$ , $VOC$ |  |
| Motiva Tank Farm (MOT)                             |                      |  |  |
| <b>Process Fugitive Areas</b>                      |                      |  |  |
| 1470FUGS   | Tank 1470 Fugitives  | VOC, Benzene, Toluene                      |  |
| 21644FUGS  | Tank 21644 Fugitives | VOC, Benzene, Toluene                      |  |
|  | 5                    | ,  |  |
| Tanks  |                      |  |  |
| AUT1470  | Tank 1470            | VOC, Benzene, Toluene                      |  |
| AUT21644   | Tank 21644           | VOC, Benzene, Toluene                      |  |
|  |                      |  |  |

# **Port Arthur Terminal (PAT)**

**Process Fugitive Areas** 

Tank 1815

#### AIR CONTAMINANTS DATA

| Emission Point No. (1)        | Source<br>Name (2)                | Air Contaminant<br>Names (3)                   |
|-------------------------------|-----------------------------------|--|
| 1 OIII INO. (1)               | Name (2)                          | Names (5)                                      |
| PATFUGS                       | Port Arthur Terminal<br>Fugitives | VOC, Benzene, Toluene                          |
| Tanks                         |                                   |  |
| AUT1622                       | Tank 1622                         | VOC, Benzene, Toluene                          |
| Port Neches Terminal (PN      | <u>T)</u>                         |  |
| <b>Process Fugitive Areas</b> |                                   |  |
| PNTFUGS                       | Port Neches Terminal Fug          | s VOC, Benzene, Toluene                        |
| Tanks                         |                                   |  |
| LOUT34030<br>LOUT5561         | Tank 34030<br>Tank 5561           | VOC, Benzene, Toluene<br>VOC, Benzene, Toluene |

# **EMISSION CAPS**

VOC, Benzene, Toluene

Emission Rates \*

Air Contaminant Name (3)

TT1815

| lb/hr                      | TPY ** |      |
|----------------------------|--------|------|
| CO                         | 432    | 1001 |
| $NO_x$                     | 394    | 1268 |
| NO <sub>x</sub> (5/1/2003) | 368    | 1010 |
| NO <sub>x</sub> (5/1/2005) | 355    | 881  |
| PM <sub>10</sub>           | 34     | 97   |
| SO <sub>2</sub>            | 203    | 216  |
| VOC                        | 303    | 560  |
| VOC (6/1/2002)             | 291    | 557  |
| VOC (12/31/2003)           | 289    | 552  |
| Benzene                    | 36     | 60   |
| Benzene (6/1/2002)         | 24     | 58   |
| Benzene (12/31/2003)       | 22     | 54   |
| Toluene                    | 25     | 20   |
| Toluene (12/31/2003)       | 19     | 19   |

- (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.
- (3) VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - $NO_x$  total oxides of nitrogen
  - SO<sub>2</sub> sulfur dioxide
  - PM particulate matter, suspended in the atmosphere, including PM<sub>10</sub>.
  - $PM_{10}$  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.
  - CO carbon monoxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Ancillary sources listed in the Emissions Cap Compliance Plan dated May 15, 2002 as being authorized by Permits by Rule (30 TAC Chapter 106) and consolidated into this permit.
- \* 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 8,760 Hrs/year
- \*\* Compliance with annual emission limits is based on a rolling 12-month period.

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