

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 21233

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.

| CONTAMINANTS DATA  |                    |                          | AIR                     |          |
|--|--------------------|--------------------------|-------------------------|----------|
| Emission Point No. (1)   | Source Name (2)    | Air Contaminant Name (3) | <u>Emission Rates *</u> |          |
|  |                    |                          | lb/hr                   | TPY**    |
| <u>Building 12-19</u>  |                    |                          |                         |          |
| (Effective until Building 11-50 is fully operational. Deleted upon full operations at Building 11-50.) |                    |                          |                         |          |
| 12-19 FUG  | Fugitives (4)      | VOC                      | 0.10                    | 0.10     |
|  |                    | HAP                      | 0.10                    | 0.10     |
| SROTOCLONE   | South Rotoclone    | VOC                      | 5.00                    | 0.50     |
|  |                    | PM                       | 0.03                    | 0.01     |
|  |                    | HAP                      | 5.00                    | 0.50     |
| NROTOCLONE   | North Rotoclone    | VOC                      | 12.00                   | 3.40     |
|  |                    | PM                       | 0.15                    | 0.20     |
|  |                    | HAP                      | 12.00                   | 3.40     |
| <u>Building 11-50, Bays 1,6, and 8</u>   |                    |                          |                         |          |
| 11-50 TE1  | Bay 1 Task Exhaust | VOC                      | 9.00                    | 3.00 (5) |
|  |                    | PM                       | 0.10                    | 0.10 (5) |
|  |                    | Total HAP                |                         | 3.00 (5) |
|  |                    | NO <sub>x</sub>          | 3.00                    | 0.50 (5) |
|  |                    | Ammonia                  | 9.90                    | 0.70 (5) |
|  |                    | Sulfur trioxide          | 0.30                    | 0.10 (5) |
| 11-50 TE6  | Bay 6 Task Exhaust | VOC                      | 9.00                    |          |
|  |                    | NO <sub>x</sub>          | 3.00                    |          |
|  |                    | PM                       | 0.10                    |          |
|  |                    | Ammonia                  | 9.90                    |          |
|  |                    | Sulfur trioxide          | 0.30                    |          |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

| Emission Point No. (1)                          | Source Name (2)    | Air Contaminant Name (3) | Emission Rates *<br>lb/hrTPY** |          |
|---|--------------------|--------------------------|--------------------------------|----------|
| 11-50 TE8                                       | Bay 8 Task Exhaust | VOC                      | 9.00                           |          |
|   |                    | PM                       | 0.10                           |          |
|   |                    | NO <sub>x</sub>          | 3.00                           |          |
|   |                    | Ammonia                  | 9.90                           |          |
|   |                    | Sulfur trioxide          | 0.30                           |          |
| <u>Building 11-50, Bays 2, 3, 5, and 7</u>      |                    |                          |                                |          |
| 11-50 TE2                                       | Bay 2 Task Exhaust | VOC                      | 5.50                           | 1.00 (6) |
|   |                    | PM                       | 0.20                           | 0.30 (6) |
|   |                    | Total HAP                |                                | 1.00 (6) |
| 11-50 TE3                                       | Bay 3 Task Exhaust | VOC                      | 5.50                           |          |
|   |                    | PM                       | 0.20                           |          |
| 11-50 TE5                                       | Bay 5 Task Exhaust | VOC                      | 5.50                           |          |
|   |                    | PM                       | 0.20                           |          |
| 11-50 TE7                                       | Bay 7 Task Exhaust | VOC                      | 5.50                           |          |
|   |                    | PM                       | 0.20                           |          |
| <u>Building 11-50, Vacuum Vents 1, 2, and 3</u> |                    |                          |                                |          |
| 11-50 VV1                                       | Vacuum Vent 1      | VOC                      | 3.00                           | 1.00 (7) |
|   |                    | PM                       | 3.00                           | 0.10 (7) |
|   |                    | Total HAP                |                                | 1.00 (7) |
|   |                    | NO <sub>x</sub>          | 7.00                           | 0.50 (7) |
|   |                    | Ammonia                  | 3.00                           | 0.20 (7) |
|   |                    | Sulfur trioxide          | 0.30                           | 0.01 (7) |
| 11-50 VV2                                       | Vacuum Vent 2      | VOC                      | 3.00                           |          |
|   |                    | PM                       | 3.00                           |          |
|   |                    | NO <sub>x</sub>          | 7.00                           |          |
|   |                    | Ammonia                  | 3.00                           |          |
|   |                    | Sulfur trioxide          | 0.30                           |          |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

### AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)     | Air Contaminant<br>Name (3) | Emission Rates * |          |
|---------------------------|------------------------|-----------------------------|------------------|----------|
|                           |                        |                             | lb/hrTPY**       |          |
| 11-50 VV3                 | Vacuum Vent 3          | Total Organics              | 3.00             |          |
|                           |                        | PM                          | 3.00             |          |
|                           |                        | NO <sub>x</sub>             | 7.00             |          |
|                           |                        | Ammonia                     | 3.00             |          |
|                           |                        | Sulfur trioxide             | 0.30             |          |
| <u>Building 11-55</u>     |                        |                             |                  |          |
| 11-55 PS1                 | Dust Collector 1 Stack | VOC                         | 17.10            | 3.97 (8) |
|                           |                        | NO <sub>x</sub>             | 0.70             | 0.22 (8) |
|                           |                        | SO <sub>3</sub>             | 0.10             | 0.10 (8) |
|                           |                        | CO                          | 0.64             | 0.21 (8) |
|                           |                        | NH <sub>3</sub>             | 13.50            | 4.40 (8) |
|                           |                        | HCl                         | 0.10             | 0.10 (8) |
|                           |                        | HCN                         | 0.24             | 0.08 (8) |
|                           |                        | Nitric Acid                 | 1.00             | 0.01 (8) |
|                           |                        | Nitrous Oxide               | 7.70             | 2.78 (8) |
|                           |                        | HAP                         |                  | 1.51(8)  |
| 11-55 PS2                 | Dust Collector 2 Stack | VOC                         | 17.10            |          |
|                           |                        | NO <sub>x</sub>             | 0.70             |          |
|                           |                        | SO <sub>3</sub>             | 0.10             |          |
|                           |                        | CO                          | 0.64             |          |
|                           |                        | NH <sub>3</sub>             | 13.50            |          |
|                           |                        | HCl                         | 0.10             |          |
|                           |                        | HCN                         | 0.24             |          |
|                           |                        | Nitric Acid                 | 1.00             |          |
|                           |                        | Nitrous Oxide               | 7.70             |          |
|                           |                        |                             |                  |          |
| 11-55 PS3                 | Dust Collector 3 Stack | VOC                         | 11.93            | 0.57     |
|                           |                        | NO <sub>x</sub>             | 0.11             | 0.01     |
|                           |                        | SO <sub>3</sub>             | 0.10             | 0.01     |
|                           |                        | CO                          | 0.01             | 0.01     |
|                           |                        | NH <sub>3</sub>             | 0.50             | 0.13     |
|                           |                        | HCl                         | 0.10             | 0.10     |
|                           |                        | HCN                         | 0.01             | 0.01     |
|                           |                        | Nitric Acid                 | 0.05             | 0.01     |
|                           |                        | Nitrous Oxide               | 0.11             | 0.04     |
|                           |                        | HAP                         |                  | 0.16     |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)      | Air Contaminant<br>Name (3) | Emission Rates *<br>lb/hrTPY** |       |
|---------------------------|-------------------------|-----------------------------|--------------------------------|-------|
| 11-55 PS4                 | Condenser Stack         | VOC                         | 16.83                          | 1.51  |
|                           |                         | NO <sub>x</sub>             | 0.30                           | 0.50  |
|                           |                         | SO <sub>3</sub>             | 0.50                           | 0.01  |
|                           |                         | CO                          | 0.15                           | 0.05  |
|                           |                         | NH <sub>3</sub>             | 2.00                           | 0.69  |
|                           |                         | HCl                         | 0.10                           | 0.10  |
|                           |                         | HCN                         | 0.06                           | 0.02  |
|                           |                         | Nitric Acid                 | 0.50                           | <0.01 |
|                           |                         | Nitrous Oxide               | 2.07                           | 0.66  |
|                           |                         | HAP                         |                                | 0.19  |
| 11-55 Tanks               | DPM Storage Tanks       | VOC                         | 12.20                          | 0.80  |
|                           | TK1                     | NH <sub>3</sub>             | 0.20                           | 0.20  |
|                           | TK2                     | HAP                         |                                | 0.02  |
|                           | TK3                     |                             |                                |       |
|                           | TK4                     |                             |                                |       |
| 11-55 VPC                 | Vacuum Pump Condensate  | VOC                         | 0.10                           | 0.01  |
| 11-55 Com Fug             | Fugitives (4)           | VOC                         | 0.10                           | 0.40  |
|                           |                         | NH <sub>3</sub>             | 0.01                           | 0.01  |
|                           |                         | HCl                         | 0.01                           | 0.01  |
|                           |                         | HAP                         |                                | 0.16  |
| <u>Firing Sites (9)</u>   |                         |                             |                                |       |
| FS-4                      | Outdoor Firing Site 4   | VOC                         | 131.00                         | 0.76  |
| FS-10                     | Outdoor Firing Site 10  | PM                          | 97.60                          | 0.51  |
| FS-16                     | Outdoor Firing Site 16  | NH <sub>3</sub>             | 1.00                           | 0.02  |
| FS-21                     | Outdoor Firing Site 21  | CO                          | 716.00                         | 3.65  |
| FS-22                     | Outdoor Firing Site 22  | Cl <sub>2</sub>             | 12.00                          | 0.40  |
| FS-23                     | Outdoor Firing Site 23  | HCl                         | 24.00                          | 0.80  |
| FS-23A                    | Outdoor Firing Site 23A | HCN                         | 1.00                           | 0.02  |
| FS-23B                    | Outdoor Firing Site 23B | HF                          | 23.70                          | 0.20  |
| FS-24A                    | Outdoor Firing Site 24A | Nitrous Oxide               | 1.00                           | 0.02  |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

| Emission<br>Point No. (1) | Source<br>Name (2)      | Air Contaminant<br>Name (3) | <u>Emission Rates *</u> |      |
|---------------------------|-------------------------|-----------------------------|-------------------------|------|
|                           |                         |                             | lb/hrTPY**              |      |
| FS-24B                    | Outdoor Firing Site 24B | NO <sub>x</sub>             | 50.10                   | 0.38 |
| Chamber 11-18             |                         | HAP                         | 76.80                   | 1.59 |
| Chamber 11-38A            |                         |                             |                         |      |
| Chamber 11-38B            |                         |                             |                         |      |

- (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) NH<sub>3</sub> - ammonia  
CO - carbon monoxide  
HCl - hydrogen chloride  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
SO<sub>3</sub> - sulfur trioxide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
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.
- HCN - hydrogen cyanide  
HF - hydrogen fluoride  
Cl<sub>2</sub> - chlorine  
HAP - hazardous air pollutant
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Combined annual emissions from Building 11-50, Bays 1, 6, and 8.
- (6) Combined annual emissions from Building 11-50, Bays 2, 3, 5, and 7.
- (7) Combined annual emissions from Building 11-50, Vacuum Vents 1, 2, and 3
- (8) Combined annual emissions from Building 11-55, PS1, and PS2.
- (9) Combined hourly and annual emissions from all Firing Sites. The HAP emission rate listed is the total for all HAPs emitted.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule, per year, per facility until Building 11-50, Bays 1, 6, and 8 start operations:

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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

Once Building 11-50, Bays 1, 6, and 8 start operations, the facilities are limited by the following maximum operating schedule, per year, per facility:

\_\_\_\_\_ 16 \_\_\_\_\_ 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\_\_\_\_\_