

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 21865

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

## Emissions Allowables Prior to Completion of MPP 3d Cell Project

|        |  |                                |        |        |
|--------|--|--------------------------------|--------|--------|
| MPP-9  | Tank T-813                                 | DTBP                           | 0.005  | 0.020  |
| MPP-19 | Product Packout and<br>Comfort Ventilation | Acid Chloride                  | 0.001  | 0.001  |
|        |  | Alcohols                       | 0.047  | 0.011  |
|        |  | Chloroformate                  | 0.001  | 0.001  |
|        |  | Diluent                        | 0.059  | 0.075  |
|        |  | Ketone                         | 0.003  | 0.004  |
|        |  | TBHP                           | 0.008  | 0.006  |
|        |  | TAHP                           | 0.342  | 0.272  |
|        |  | Organic Peroxides              | 0.010  | 0.007  |
|        |  | DIB                            | 0.380  | 0.015  |
|        |  | DTBP                           | 0.949  | 0.030  |
| MPP-25 | Cabinet V-107                              | PM                             | 0.18   | 0.12   |
| MPP-26 | V. Pump P-106                              | PM                             | 0.33   | 0.22   |
| MPP-27 | Cabinets V-204                             | PM                             | 0.36   | 0.10   |
| MPP-28 | Tank T-205                                 | Organic Acid                   | 0.16   | 0.03   |
| MPP-29 | Acid Storage Tank                          | H <sub>2</sub> SO <sub>4</sub> | <0.001 | <0.001 |
| MPP-30 | Tank T-1101                                | Ethylene Glycol                | <0.001 | <0.001 |

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AIR CONTAMINANTS DATA

| Emission<br>*        | Source          | Air Contaminant                | <u>Emission Rates</u> |            |
|----------------------|-----------------|--------------------------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u> | <u>Name (3)</u>                | <u>lb/hr</u>          | <u>TPY</u> |
| MPP-31               | Tank T-203      | H <sub>2</sub> SO <sub>4</sub> | <0.001                | <0.001     |

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| Emission<br>*        | Source                  | Air Contaminant   | <u>Emission Rates</u> |            |
|----------------------|-------------------------|-------------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u>         | <u>Name (3)</u>   | <u>lb/hr</u>          | <u>TPY</u> |
| MPP-38               | Caustic Scrubber A-1201 | Acid Chloride/    |                       |            |
|                      |                         | Chloroformate     | 0.057                 | 0.024      |
|                      |                         | Alcohols          | 0.382                 | 0.405      |
|                      |                         | Diluent           | 0.954                 | 1.232      |
|                      |                         | Hydrogen Peroxide | 0.004                 | 0.001      |
|                      |                         | Ketone            | 0.177                 | 0.256      |
|                      |                         | TBHP              | 0.118                 | 0.228      |
|                      |                         | TAHP              | 0.077                 | 0.059      |
|                      |                         | Organic Peroxide  | 0.374                 | 1.109      |
|                      |                         | DTBP              | 1.812                 | 3.030      |
|                      |                         | DTAP              | 0.272                 | 0.016      |
|                      |                         | DIB               | 0.286                 | 0.594      |
|                      |                         | Isoamylene        | 4.12                  | 0.331      |
|                      |                         | Cyclic Ether      | 0.057                 | 0.054      |
|                      |                         | Cyclic Peroxide   | 0.039                 | 0.034      |
| MPP-FUG              | Fugitives (4)           | VOC               | 0.81                  | 2.61       |

## Emissions Caps Following the Completion of MPP 3d Cell Project

## ORGANIC HYDROPEROXIDES EMISSION CAP

|        |                  |       |       |
|--------|------------------|-------|-------|
| MPP-37 | Wastewater Tank  | 0.115 | 0.257 |
| MPP-39 | Thermal Oxidizer |       |       |

## ORGANIC PEROXIDES EMISSION CAP

|        |                  |       |      |
|--------|------------------|-------|------|
| MPP-37 | Wastewater Tank  | 0.498 | 1.79 |
| MPP-39 | Thermal Oxidizer |       |      |

## CYCLIC PEROXIDES EMISSION CAP

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AIR CONTAMINANTS DATA

| Emission<br>*        | Source           | Air Contaminant | <u>Emission Rates</u> |            |
|----------------------|------------------|-----------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u>  | <u>Name (3)</u> | <u>lb/hr</u>          | <u>TPY</u> |
| MPP-39               | Thermal Oxidizer |                 | 0.001                 | 0.001      |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

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

## DTBP EMISSION CAP

|        |                  |  |       |       |
|--------|------------------|--|-------|-------|
| MPP-9  | Tank T-813       |  | 0.605 | 0.105 |
| MPP-37 | Wastewater Tank  |  |       |       |
| MPP-39 | Thermal Oxidizer |  |       |       |

## ALCOHOLS EMISSION CAP

|        |                  |  |       |       |
|--------|------------------|--|-------|-------|
| MPP-37 | Wastewater Tank  |  | 0.194 | 0.455 |
| MPP-39 | Thermal Oxidizer |  |       |       |

## DILUENTS EMISSION CAP

|        |                  |  |       |       |
|--------|------------------|--|-------|-------|
| MPP-37 | Wastewater Tank  |  | 1.375 | 2.296 |
| MPP-39 | Thermal Oxidizer |  |       |       |

## CYCLIC ETHERS EMISSION CAP

|        |                  |  |       |       |
|--------|------------------|--|-------|-------|
| MPP-37 | Wastewater Tank  |  | 0.012 | 0.004 |
| MPP-39 | Thermal Oxidizer |  |       |       |

## KETONES EMISSION CAP

|        |                  |  |       |       |
|--------|------------------|--|-------|-------|
| MPP-37 | Wastewater Tank  |  | 0.007 | 0.014 |
| MPP-39 | Thermal Oxidizer |  |       |       |

## PM EMISSION CAP

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AIR CONTAMINANTS DATA

| Emission<br>*        | Source                   | Air Contaminant | <u>Emission Rates</u> |            |
|----------------------|--------------------------|-----------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u>          | <u>Name (3)</u> | <u>lb/hr</u>          | <u>TPY</u> |
| MPP-25               | Cabinets V-107 and V-108 |                 | 0.963                 | 0.629      |

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## AIR CONTAMINANTS DATA

| Emission<br>*  | Source                   | Air Contaminant                | <u>Emission Rates</u> |            |
|--|--------------------------|--------------------------------|-----------------------|------------|
| <u>Point No. (1)</u>   | <u>Name (2)</u>          | <u>Name (3)</u>                | <u>lb/hr</u>          | <u>TPY</u> |
| MPP-26   | V. Pump P-106            |                                |                       |            |
| MPP-27   | Cabinets V-204 and V-208 |                                |                       |            |
| MPP-39   | Thermal Oxidizer         |                                |                       |            |
| <b>Miscellaneous Emission Allowables Following the<br/>Completion of MPP 3d Cell Project</b> |                          |                                |                       |            |
| MPP-28   | Tank T-205               | Organic Acid                   | 0.174                 | 0.058      |
| MPP-29   | Acid Storage Tank        | H <sub>2</sub> SO <sub>4</sub> | <0.001                | <0.001     |
| MPP-30   | Tank T-1101              | Ethylene Glycol                | <0.001                | <0.001     |
| MPP-31   | Tank T-203               | H <sub>2</sub> SO <sub>4</sub> | <0.001                | <0.001     |
| MPP-39   | Thermal Oxidizer         | Acid Chloride                  | 0.050                 | 0.047      |
|  |                          | Chloroformate                  | 0.001                 | 0.001      |
|  |                          | Cumene                         | 0.002                 | 0.003      |
|  |                          | Acetic Anhydride               | 0.014                 | 0.018      |
|  |                          | DIB                            | 0.007                 | 0.013      |
|  |                          | Isoamylene                     | 0.089                 | 0.008      |
|  |                          | SO <sub>2</sub>                | 0.001                 | 0.002      |
|  |                          | NO <sub>x</sub>                | 0.100                 | 0.439      |
|  |                          | CO                             | 0.021                 | 0.093      |
|  |                          | TOC                            | 0.005                 | 0.023      |
|  |                          | HCl                            | 0.747                 | 0.706      |
| FUG  | Fugitives (4)            | VOC                            | 0.844                 | 6.334      |

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

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

(2) Specific point source name. For fugitive sources use area name  
or fugitive source name.



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- (3) DTBP - ditertiary butyl peroxide  
VOC - volatile organic compounds as defined in General Rule 101.1  
TBHP - tertiary butyl hydroperoxide  
TAHP - tertiary amyl hydroperoxide  
DTAP - ditertiary amyl peroxide  
DIB - diisobutylene  
PM - particulate matter  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
SO<sub>2</sub> - sulfur dioxide  
NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
TOC - total organic carbon from combustion of natural gas  
HCl - hydrogen chloride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

\* 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 \_\_\_\_\_