

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 4056

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 * | Source | Air Contaminant | <u>Emission Rates</u> | |
|-----------------------------|-------------------------|-----------------|-----------------------|-------|
| Point No. (1) | Name (2) | Name (3) | lb/hr | TPY |
| <u>CARBON MONOXIDE UNIT</u> | | | | |
| 51MH5A | Heater MH-5A | PM | 0.34 | 1.34 |
| | | VOC | 0.41 | 1.60 |
| | | NO _x | 10.74 | 41.98 |
| | | SO ₂ | 0.30 | 1.19 |
| | | CO | 2.40 | 9.36 |
| 51MJ9 | Start-up Eductor MJ-009 | PM | 0.02 | <0.01 |
| | | VOC | 0.02 | <0.01 |
| | | NO _x | 0.36 | 0.08 |
| | | SO ₂ | <0.01 | <0.01 |
| | | CO | 0.07 | 0.02 |
| 51MJ138 | Start-up Eductor MJ-138 | PM | 0.02 | <0.01 |
| | | VOC | 0.02 | <0.01 |
| | | NO _x | 0.36 | 0.08 |
| | | SO ₂ | <0.01 | <0.01 |
| | | CO | 0.07 | 0.02 |
| 51MJ139 | Start-up Eductor MJ-139 | PM | 0.02 | <0.01 |
| | | VOC | 0.02 | <0.01 |
| | | NO _x | 0.36 | 0.08 |
| | | SO ₂ | <0.01 | <0.01 |
| | | CO | 0.07 | 0.02 |
| 51MN157 | Flare MN-157 | VOC | 13.01 | 0.65 |
| | | NO _x | 60.04 | 5.20 |

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| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3)lb/hr | <u>Emission Rates *</u> | |
|---------------------------|--------------------|----------------------------------|-------------------------|-------|
| | | | TPY | |
| | | SO ₂ | 9.58 | 1.15 |
| | | CO | 514.75 | 29.42 |

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| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3)lb/hr | Emission Rates * | |
|-------------------------|-----------------------------------|-------------------------------|------------------|--------|
| | | | TPY | |
| 51C0FUG | Fugitives (4) | VOC | 8.45 | 37.01 |
| | | SO ₂ | 2.78 | 12.16 |
| | | CO | 16.28 | 71.30 |
| | | CFC-12 | 6.96 | 30.50 |
| | | NH ₃ | <0.01 | 0.01 |
| <u>ACETIC ACID UNIT</u> | | | | |
| 49T149ST | HAc Storage Tank Scrubber T-149 | HAc | 1.72 | 1.54 |
| 49V578ST | HAc Scavenger Tank | HAc | 0.23 | <0.01 |
| 49V598ST | Personnel Exposure Control Device | VOC | 0.02 | 0.07 |
| | | Iodide | <0.01 | <0.01 |
| 49V601ST | Process Area Scavenger Tank | | VOC | 0.57 |
| | 0.02 | | | |
| 49V604ST | Steam Condensate Tank | VOC | <0.01 | <0.01 |
| 49V1049ST | HAc Storage Tank | VOC | 0.46 | 0.09 |
| 49V1195ST | Methyl Acetate IFR Storage Tank | MeAc | 0.31 | 0.81 |
| | | MeOH | 0.06 | 0.13 |
| 49MN138ST | Acetic Acid Unit Flare | VOC | 34.06 | 10.57 |
| | | NO _x | 4.50 | 2.96 |
| | | CO | 177.94 | 149.26 |
| 49MN294ST | HAc Loading Thermal Oxidizer | | VOC | 0.65 |
| | | 1.22 | | |
| | | NO _x | 0.44 | 1.31 |
| | | CO | 10.64 | 38.30 |
| 49HACLD FUG | HAc Loading Fugitives (4) | | VOC | 8.13 |
| | 15.45 | | | |

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|---------------------------|--------------------|----------------------------------|--------------------------------|
|---------------------------|--------------------|----------------------------------|--------------------------------|

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|---------------------------|---|----------------------------------|-------------------------|-------|
| | | | TPY | |
| 49HACFUG | HAc Unit Equipment Fugitives (4 and 5) | VOC | 4.18 | 18.40 |
| | | CO | 0.51 | 2.23 |
| | | LiI | 0.04 | 0.18 |
| | | KI | <0.01 | 0.01 |

(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) PM - particulate matter, suspended in the atmosphere, including PM₁₀.

PM₁₀ - 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.

VOC - volatile organic compounds as defined in General Rule 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

CO - carbon monoxide

HAc - acetic acid

CFC-12 - Freon (dichlorodifluoromethane)

NH₃ - ammonia

MeAc - methyl acetate

MeOH - methanol

LiI - lithium iodide

KI - potassium iodide

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) Fugitive emissions from Standard Exemption Registration No. 34410 for the Acetaldehyde Removal Unit have been incorporated into Emission Point No. 49HACFUG.

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

Hrs/day_____ Days/week_____ Weeks/year_____ or Hrs/year 8,760

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|---------------------------|--------------------|----------------------------------|--------------------------------|

Dated _____