

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 19886

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> | |
|----------------------|---|------------------|---------------------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u> | <u>Name (3)</u> | <u>lb/hr</u> | <u>TPY</u> |
| 8-1-002 | Pourer Furnace | PM ₁₀ | 0.01 | 0.05 |
| | | SO ₂ | <0.01 | <0.01 |
| | | NO _x | 0.09 | 0.41 |
| | | CO | 0.02 | 0.08 |
| | | VOC | <0.01 | 0.02 |
| 8-1-003 | W-900A Recovery Vaporizer | PM ₁₀ | 0.09 | 0.40 |
| | | SO ₂ | <0.01 | 0.02 |
| | | NO _x | 0.75 | 3.28 |
| | | CO | 0.15 | 0.66 |
| | | VOC | 0.04 | 0.17 |
| 8-1-004 | Strand Room Vent (5) | VOC | 1.66 | 7.97 |
| 8-1-005 | Stand Room Vent (5) | VOC | 1.66 | 7.97 |
| 8-1-008 | B-1 Storage Tank | VOC | 0.01 | <0.01 |
| 8-1-009 | B-23 Storage Tank | VOC | 1.23 | 0.01 |
| 8-1-010 | Propionic Acid Process Fugitives (4) | VOC | 0.20 | 0.86 |
| 8-1-011 | Hydrazine Process Fugitives (4) 0.02 | | H ₂ NNH ₂ | <0.01 |
| 8-1-012 | Bulk Storage Silos | PM ₁₀ | 0.69 | 2.97 |
| | | TSP | 1.98 | 8.49 |

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|----------------------|-------------------------|------------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u> | <u>Name (3)</u> | <u>lb/hr</u> | <u>TPY</u> |
| 8-1-014 | B-195 Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-015 | B-63A Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-017 | D-900 Process Vessel | VOC | 0.06 | <0.01 |
| 8-1-018 | D-920 Process Vessel | VOC | 0.05 | <0.01 |
| 8-1-019 | D-940 Process Vessel | VOC | 0.02 | <0.01 |
| 8-1-020 | D-950 Process Vessel | VOC | 0.05 | <0.01 |
| 8-1-021 | D-984 Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-023 | B-1000 Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-024 | B-130A&B Process Vessel | VOC | 0.34 | 0.01 |
| 8-1-025 | B-143 Process Vessel | VOC | 0.30 | <0.01 |
| 8-1-026 | A-27A Storage Tank | VOC | <0.01 | <0.01 |
| 8-1-027 | A-27B Storage Tank | VOC | 0.02 | <0.01 |
| 8-1-028 | B-200 Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-030 | Packaging Silos | PM ₁₀ | 0.69 | 2.97 |
| | | TSP | 1.98 | 8.49 |
| 8-1-031 | Cooling Towers | VOC | <0.01 | <0.01 |
| 8-1-032 | D-949 Process Vessel | VOC | <0.01 | <0.01 |

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| Emission * <u>Point No. (1)</u> | Source Name (2) | Air Contaminant Name (3) | <u>Emission Rates</u> | |
|---------------------------------------|-------------------------|---------------------------------|-----------------------|-------|
| | | | lb/hr | TPY |
| 8-1-033 | D-945 Process Vessel | VOC | <0.01 | 0.02 |
| 8-1-035 | T-907 Catalyst Scrubber | PM ₁₀ | <0.01 | <0.01 |
| | | TSP | 0.01 | 0.05 |

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|---------------|--|---------------------------------|----------|-------|
| Point No. (1) | Name (2) | Name (3) | lb/hr | TPY |
| 8-1-036 | B-27 Reactor Refeed Hoppers 0.02 | PM ₁₀ | 0.02 | 0.02 |
| | | TSP | 0.06 | 0.05 |
| 8-1-037 | Recovered Caprolactam Loading 0.01 | VOC | 0.08 | 0.08 |
| 8-1-038 | Spent Heating Fluid Loading <0.01 | VOC | <0.01 | <0.01 |
| 8-1-039 | B-125 Hydrazine Storage Tank <0.01 | H ₂ NNH ₂ | <0.01 | <0.01 |
| 8-1-040 | F-155 Solid Additive Hopper 1.97 | PM ₁₀ | 0.46 | 0.46 |
| | | TSP | 0.68 | 2.94 |
| 8-1-041 | Seal Pots | VOC | 0.04 | 0.16 |
| 8-1-042 | Slurry Drums | VOC | 0.05 | 0.20 |
| 8-1-043 | B-2 TAD Storage Tank | VOC | 0.08 | <0.01 |
| 8-1-044 | TAD Process Fugitives (4) | VOC | 0.01 | 0.05 |
| 8-1-006 | W-30E Vaporizer (Continuously Running Back-up) <0.01 | PM ₁₀ | 0.02 | 0.07 |
| | | SO ₂ | <0.01 | <0.01 |
| | | NO _x | 0.14 | 0.61 |
| | | CO | 0.03 | 0.12 |
| | | VOC | <0.01 | 0.03 |
| 8-1-300 | W-40C Vaporizer (Reactor Train No. 3) | PM ₁₀ | 0.03 | 0.15 |
| | | SO ₂ | <0.01 | <0.01 |

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|----------------------|-----------------|-----------------|-----------------------|------------|
| <u>Point No. (1)</u> | <u>Name (2)</u> | <u>Name (3)</u> | <u>lb/hr</u> | <u>TPY</u> |
| | | NO _x | 0.28 | 1.23 |
| | | CO | 0.06 | 0.25 |
| | | VOC | 0.02 | 0.07 |

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| Emission * | Source | Air Contaminant | Emission | Rates |
|---------------|--|------------------|----------|-------|
| Point No. (1) | Name (2) | Name (3) | lb/hr | TPY |
| 8-1-400 | W-40D Vaporizer (Reactor Train No. 4) | PM ₁₀ | 0.03 | 0.15 |
| | | SO ₂ | <0.01 | <0.01 |
| | | NO _x | 0.28 | 1.23 |
| | | CO | 0.06 | 0.25 |
| | | VOC | 0.02 | 0.07 |
| 8-1-500 | W-40E Vaporizer (Reactor Train No. 5) | PM ₁₀ | 0.03 | 0.15 |
| | | SO ₂ | <0.01 | <0.01 |
| | | NO _x | 0.28 | 1.23 |
| | | CO | 0.06 | 0.25 |
| | | VOC | 0.02 | 0.07 |
| 8-1-101 | W-50C Vaporizer | PM ₁₀ | 0.06 | 0.24 |
| | | SO ₂ | <0.01 | 0.01 |
| | | NO _x | 0.47 | 2.05 |
| | | CO | 0.09 | 0.41 |
| | | VOC | 0.03 | 0.11 |
| 8-1-201 | W-50D Vaporizer | PM ₁₀ | 0.06 | 0.24 |
| | | SO ₂ | <0.01 | 0.01 |
| | | NO _x | 0.47 | 2.05 |
| | | CO | 0.09 | 0.41 |
| | | VOC | 0.03 | 0.11 |
| 8-1-600 | W-50F Vaporizer (Reactor Train No. 6) | PM ₁₀ | 0.06 | 0.24 |
| | | SO ₂ | <0.01 | 0.01 |
| | | NO _x | 0.47 | 2.05 |
| | | CO | 0.09 | 0.41 |
| | | VOC | 0.03 | 0.11 |
| 8-1-700 | W-50G Vaporizer (Reactor Train No. 7) | PM ₁₀ | 0.06 | 0.24 |
| | | SO ₂ | <0.01 | 0.01 |
| | | NO _x | 0.47 | 2.05 |
| | | CO | 0.09 | 0.41 |

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| Emission * | Source | Air Contaminant | Emission | Rates |
|---------------|---------------------------|------------------|----------|-------|
| Point No. (1) | Name (2) | Name (3) | lb/hr | TPY |
| | | VOC | 0.03 | 0.11 |
| 8-1-607 | CY-94F1 Train 6 Separator | PM ₁₀ | 0.10 | 0.40 |
| | Cyclone | TSP | 0.27 | 1.13 |
| 8-1-608 | CY-94F2 Train 6 Separator | PM ₁₀ | 0.10 | 0.40 |
| | Cyclone | TSP | 0.27 | 1.13 |
| 8-1-612 | D-971 Process Vessel | VOC | <0.01 | <0.01 |
| 8-1-701 | CY-94G1 Train 7 Separator | PM ₁₀ | 0.11 | 0.46 |
| | Cyclone | TSP | 0.30 | 1.32 |
| 8-1-702 | CY-94G2 Train 7 Separator | PM ₁₀ | 0.11 | 0.46 |
| | Cyclone | TSP | 0.30 | 1.32 |
| 8-1-045 | D-990 Process Vessel | VOC | 0.06 | <0.01 |
| 8-1-046 | B-66 Diesel Tank | VOC | 0.07 | <0.01 |

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| | | | |
|---------|-------------------------|------------------|----------------------|
| 8-1-007 | W-40S Back-up Vaporizer | PM ₁₀ | For Back-up Use Only |
| | | SO ₂ | |
| | | NO _x | |
| | | CO | |
| | | VOC | |

- (1) Emission point identification - either specific equipment designation or emission point number (EPN) 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 General Rule 101.1
 - PM₁₀ - particulate matter less than 10 microns in diameter
 - TSP - total suspended particulate matter including PM₁₀
 - TAD - triacetone diamine
 - H₂NNH₂ - hydrazine
 - NO_x - total oxides of nitrogen
 - CO - carbon monoxide
 - SO₂ - sulfur dioxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Authorized emissions of EPN 8-1-004. Sum of EPN 8-1-004 and 8-1-005 emissions cannot exceed EPN 8-1-004 limits.

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

| | | |
|---------------|-----------------|----------------------------------|
| _____ Hrs/day | _____ Days/week | _____ Weeks/year or <u>8,760</u> |
| Hrs/year | | |

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Dated _____