

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 17276

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)	<u>lb/hr</u>	<u>TPY</u>
S-6	Surge Tank, V-2728	VOC	0.01	0.03
P-10	4-HAP Flaker Filter, MS-1916	PM <sub>10</sub> VOC	0.09 <0.01	0.38 <0.01
P-11	4-HAP Flaker, MD-57	PM VOC	0.75 <0.01	0.07 <0.01
P-12	APAP Product Mill, MG-30	PM VOC	<0.01 <0.01	0.03 <0.01
P-13	APAP Premill Blower Filter, 0.10 MS-1946	VOC	PM <sub>10</sub> <0.01	0.02 <0.01
S-14	Flare, T-510	VOC CO NO <sub>x</sub> HF	1.60 0.03 <0.01 <0.01	7.01 0.15 0.03 <0.01
S-15	SO <sub>2</sub> Vent Scrubber, T-508	SO <sub>2</sub> VOC	0.12 0.10	0.08 0.29
S-17	Storage Tank, V-2814	VOC	<0.02	0.03
S-18	Storage Tank, V-2813	VOC	7.54	0.79
S-19	Storage Tank, V-2812	VOC	1.70	0.15

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Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
S-20	Unit Process Fugitives (4) 6.28	VOC		1.89
		SO <sub>2</sub>	1.24	5.42
		HF	0.56	2.48
		NH <sub>3</sub>	0.28	1.21
		SOCl <sub>2</sub>	0.02	0.11
S-21	Tank Farm Fugitives (4)	VOC	1.76	7.69
		SO <sub>2</sub>	0.48	2.01
		HF	0.28	1.22
		SOCl <sub>2</sub>	0.01	0.06
S-23	Storage Tank, V-2747	VOC	0.02	0.08
		NH <sub>3</sub>	0.09	0.37
		N <sub>2</sub> O	0.11	0.48
S-24	Oxime Reactor Vent V-2750	VOC	<0.04	<0.03
		NH <sub>3</sub>	0.01	0.05
		N <sub>2</sub> O	0.01	0.06
P-25	Manual Charge Fugitives (4) <0.01 V-2740	VOC	<0.01	<0.01
P-26	Oxime Reactor Charge Fugitives, V-2750 (4)	PM	1.32	0.77
		VOC	<0.01	<0.01
P-28	Oxime Bin Vent Filter MS-1920	PM <sub>10</sub>	0.02	0.08
		VOC	<0.01	<0.01
P-29	Oxime Bin Vent Filter MS-1921	PM <sub>10</sub>	0.02	0.08
		VOC	<0.01	<0.01
S-30	Centrate Surge Tank, V-2753	VOC	<0.03	<0.03
		NH <sub>3</sub>	<0.01	<0.01
		N <sub>2</sub> O	<0.01	<0.01
S-31	Wash Water Tank,	VOC	<0.03	<0.03

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			lb/hr	TPY
	V-2754	NH <sub>3</sub>	<0.01	<0.01
		N <sub>2</sub> O	<0.01	<0.01
P-32	Oxime Transfer Filter MS-1926	PM <sub>10</sub>	0.16	0.09
		VOC	<0.01	<0.01
P-33	APAP Bin Vent Filter MS-1942	PM <sub>10</sub>	<0.01	<0.01
		VOC	<0.01	<0.01
P-34	APAP Bin Vent Filter MS-1943	PM <sub>10</sub>	<0.01	<0.01
		VOC	<0.01	<0.01
P-35	Carbon Bin Vent Filter, MS-1941	PM <sub>10</sub>	0.04	0.01
P-36	Precoat "A" Tank Filter, MS-2051	PM <sub>10</sub>	<0.01	<0.01
P-37	Loading Vent	Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> -PM	1.00	0.02
P-38	Charging Vent	PM	0.04	<0.01
P-39	Acid Loading Filter MS-2053	PM <sub>10</sub>	1.00	0.01
		VOC	<0.01	<0.01
P-40	APAP Rework Blower Filter 0.10 MS-1928	PM <sub>10</sub>		0.02
		VOC	<0.01	<0.01
S-41	Waste Water Tank, V-2823	VOC	<0.05	<0.05
		N <sub>2</sub> O	<0.01	0.02
		NH <sub>3</sub>	<0.01	0.02
S-42	Waste Water Tank, V-2822	VOC	<0.05	<0.05
		N <sub>2</sub> O	<0.01	0.02

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			lb/hr	TPY
		NH <sub>3</sub>	<0.01	0.02
S-44	Storage Tank, V-2740	VOC	<0.02	<0.02
S-46	Centrate Tank, V-2772	VOC	<0.02	<0.02
		Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>	<0.01	<0.01

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			lb/hr	TPY
S-47	Centrate Tank, V-2797	VOC Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>	<0.02 <0.01	<0.02 <0.01
S-48	APAP Wash Water Tank V-2796	VOC Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>	<0.02 <0.01	<0.02 <0.01
P-50	Dust Collection Filter MS-1984	Dust-PM <sub>10</sub> VOC	0.23 <0.01	0.99 <0.01
P-51	APAP Rework Blower Filter, <0.01 MS-1927	VOC	PM <sub>10</sub> <0.01	0.02 <0.01
P-52	APAP Bin Vent Filter, MS-1952	PM <sub>10</sub> VOC	<0.01 <0.01	0.04 <0.01
P-54	Carbon Blower Filter, MS-1931 <0.01		PM <sub>10</sub>	0.02
P-55	Recirculation Tank Filter, 0.02 MS-2059		PM <sub>10</sub>	0.13
S-56	Storage Tank, V-2779	VOC	<0.01	0.03
S-57	Tower Vacuum, V-2741	VOC	<0.02	<0.02
S-59	Vacuum System, V-2759	VOC	<0.01	<0.01
S-60	Storage Tank, V-2751	VOC NH <sub>3</sub> N <sub>2</sub> O	<0.03 <0.01 <0.01	<0.03 0.01 0.01
S-61	Centrifuge, MS-1907	VOC	<0.01	<0.01

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
S-62	Storage Tank, V-2755	VOC	<0.01	<0.01
S-63	Vacuum System, V-2780	VOC	<0.01	<0.0
S-64	Vacuum Jet Vent, HE-2904	VOC	<0.01	<0.01
P-65	APAP Vent Header	Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub>	<0.01	<0.01
S-66	Drying System, V-2799	VOC	<0.01	<0.01
P-67	APAP Bin Vent Filter	PM <sub>10</sub>	0.02	0.07
		VOC	<0.01	<0.01
S-68	Vacuum Jet Vent HE-2885	VOC	3.00	<0.01
		NH <sub>3</sub>	0.08	0.37
		N <sub>2</sub> O	0.11	0.48
S-69	Jet Condenser Vent	VOC	<0.01	<0.01
P-70	4-HAP Pack Room Fugitives (4)	PM	<0.01	0.03
		VOC	<0.01	<0.01
S-71	Thionyl Chloride Unloading	SO <sub>2</sub>	4.00	0.36
		HCl	4.56	0.35
P-72	Oxime Rework Guard Filter		PM	0.18
	<0.01 MS-1969	VOC	<0.01	<0.01
P-73	Precoat "B" Tank Filter, MS-2052	PM <sub>10</sub>	<0.01	<0.01
P-74	APAP Pack Room Fugitives (4)	PM	<0.01	0.03
		VOC	<0.01	<0.01

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
P-75	Acid Solution Tank Filter 0.02	PM <sub>10</sub>		0.28
	MS-2050	VOC	<0.01	<0.01
P-76	APAP Packaging Vent MS-3052	PM <sub>10</sub>	<0.01	<0.01
		VOC	<0.01	<0.01
P-77	Rework Conveyor APAP Part to Blend (4)	PM	<0.01	0.03
		VOC	<0.01	<0.01
P-78	APAP Packaging System Filter 0.07	PM		0.02
	MS-2054	VOC	<0.01	<0.01
P-79	Dust Collection Blower Filter 0.99	PM		0.23
	MS-2061	VOC	<0.01	<0.01
P-80	APAP Rework Bin Vent Filter <0.01	PM		<0.01
	MS-1951	VOC	<0.01	<0.01
S-81	Oxime Centrifuge	PM	<0.01	<0.01
S-82	Reaction Vessel	VOC	0.04	<0.03
		NH <sub>3</sub>	0.01	0.05
		N <sub>2</sub> O	0.01	0.06
P-83	Crystal Blender Bin Vent Filter	PM	<0.01	<0.01
		VOC	<0.01	<0.01
P-84	Crystal Blender Loop Guard Filter	PM	0.05	0.20
		VOC	<0.01	<0.01
P-85	Crystal Packaging Hopper	PM	<0.01	<0.01

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
	Bin Vent Filter	VOC	<0.01	<0.01
P-86	Crystal Packaging Room Fugitives (4)	PM	<0.01	0.03
P-87	Oxime Dryer Vent MS-1923	PM VOC	0.03 <0.01	0.14 <0.01
P-88	APAP Dryer Vent MS-1939	PM VOC	0.03 <0.01	0.14 <0.01
P-90	APAP Packaging Hopper Filter 0.01 MS-3050		PM	<0.01
		VOC	<0.01	<0.01
S-91	Sump Segregation Tank	VOC	<0.05	<0.05
S-92	Storage Tank	HAS	0.05	0.12
		NH <sub>3</sub>	0.08	0.37
		N <sub>2</sub> O	0.11	0.48

(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

PM<sub>10</sub> - particulate matter less than 10 microns

VOC - volatile organic compounds as defined in General Rule 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

CO - carbon monoxide

HF - hydrogen fluoride

NH<sub>3</sub> - ammonia

N<sub>2</sub>O - nitrous oxide



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Point No. (1)	Name (2)	Name (3)	lb/hr	TPY

HCl - hydrogen chloride

APAP - acetaminophen

4-HAP - 4-hydroxyacetophenone

SOCl<sub>2</sub> - thionyl chloride

Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> - sodium dithionite

HAS - hydroxyl ammonium sulfate

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

\* 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

Dated \_\_\_\_\_