

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 7719A

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 * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
F-CT3	Cooling Tower	VOC	0.07	0.29
		Chlorine	0.03	0.12
		Bromine	0.03	0.12
F-R1	Process Fugitives (4)	VOC	1.82	7.99
		H ₂ S	0.03	0.13
	Process Fugitives (4 and 5) 9.88	VOC		2.25
		H ₂ S	0.05	0.22
F-R2	Powder Boxing Stations	PM	<0.01	0.01
	Powder Boxing Stations (5) 0.02		PM	<0.01
F-R3	Blower Discharge	PM	0.14	0.61
H-8	No. 1 Heater	CO	1.25	5.48
		NO _x	2.39	10.48
		SO ₂	0.96	0.10
		VOC	0.10	0.44
		PM	0.49	2.15
H-9	No. 2 Heater	CO	1.25	5.48
		NO _x	2.39	10.48
		SO ₂	0.96	0.10
		VOC	0.10	0.44
		PM	0.49	2.15

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
R-R1	North DCB Railcar	VOC	0.62	2.72
R-R2	NaSH Railcar	H ₂ S	0.07	0.34
R-V1	Acetic Acid Scrubber	VOC	0.01	<0.01
R-V2	Crude NMP Surge Tank Cond.	VOC	0.54	2.38
		H ₂ S	0.10	0.38
		Acetone	<0.01	<0.01
R-V3	Cure Vessel Vent Scrubber YA25	VOC	0.28	1.04
		PM ₁₀	<0.01	0.02
		PM	0.06	0.28
		Acetone	<0.01	<0.01
R-V5	Cure Vessel Vent Scrubber YA24	VOC	0.28	1.04
		PM ₁₀	<0.01	0.02
		PM	0.06	0.28
		Acetone	<0.01	<0.01
R-V7	DCB Skid Vacuum Pump	VOC	0.03	0.11
		Acetone	<0.01	<0.01
R-V8	Dehydration Scrubber	VOC	0.01	0.03
		H ₂ S	<0.01	0.01
		Acetone	<0.01	<0.01
R-V9	Extruder Vacuum Jet	VOC	0.04	0.12
	Extruder Vacuum Jet (5)	VOC	0.06	0.12
R-V10	Glass Port Blower Vent	VOC	0.99	4.14
		Acetone	0.06	0.24
	Glass Port Blower Vent (5) 4.14	VOC		1.64

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			lb/hr	TPY
		Acetone	0.10	0.24
R-V11	Low-Pressure K. O. Pot	VOC	0.55	1.95
		H ₂ S	0.39	1.73
		Acetone	0.02	0.07
R-V12	Process Water Sump	VOC	0.02	0.06
		Acetone	<0.01	0.01
R-V13	No. 1 Dryer Vent (6)	VOC	0.70	3.07
		Acetone	0.05	0.21
R-V14	No. 3 Dryer Vent	VOC	4.03	10.93
		PM ₁₀	1.16	5.54
		Acetone	0.27	0.74
R-V15	No. 1 Belt Filter	H ₂ S	0.01	0.03
R-V16	Train B No. 2 Dryer Vent (5)	VOC	4.02	10.92
		PM ₁₀	0.28	1.23
		Acetone	0.27	0.74
R-V17	Train B No. 2 Dehydration 0.03 Scrubber (5)	VOC		0.01
		H ₂ S	<0.01	0.01
		Acetone	<0.01	<0.01
T-95-28	Lights Column Phase Separator	VOC	0.06	0.31
		Acetone	0.01	0.02
T-95-114	NMP Storage Tank	VOC	0.02	0.07
T-95-136	Filter Feed Tank	VOC	0.12	0.43
		H ₂ S	0.12	0.45
		Acetone	<0.01	0.02
T-95-160	No. 6 Slurry Tank	VOC	0.01	0.04

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
		Acetone	<0.01	<0.01
T-95-166	NMP Heavies (M-5)	VOC	0.86	0.10
T-95-167	Crude NMP Tank (M-6)	VOC	0.02	0.07
T-95-169A	S. Fresh/Recycle NMP	VOC	0.02	0.07
T-95-169B	N. Fresh/Recycle NMP	VOC	0.02	0.07
T-95-170	NaSH Storage Tank	H ₂ S	3.24	0.56
T-95-174	No. 1 Slurry Tank	VOC	0.01	0.04
		Acetone	<0.01	<0.01
T-95-182	NaSH Waste/Recycle Tank	H ₂ S	4.68	0.07
T-95-YA04	Train B No. 2 Feed Filter		VOC	0.12
	0.44			
	Tank (5)	H ₂ S	0.12	0.45
		Acetone	<0.01	0.02

(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) VOC - volatile organic compounds as defined in General Rule 101.1

H₂S - hydrogen sulfide

PM - particulate matter, suspended in the atmosphere, including PM₁₀ from that emission point

CO - carbon monoxide

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

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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>

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.

- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Emission rate after the installation of emission controls as specified in Special Condition No. 7 and production increase above the interim limit.
- (6) Emission point void after debottlenecking allows production to be increased above the interim limit.

* 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 _____