

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 1862A

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

<u>Emission Rates *</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Emission</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
1	CausticScrubber	Decanoyl Chloride	0.013	<0.01
		PVCl	0.25	0.04
		HCl	0.18	0.03
2	West Boiler	CO 0.37	1.62	
		NO _x	1.48	6.50
		PM ₁₀	0.079	0.35
		SO ₂	0.0064	0.028
		VOC	0.061	0.27
4	South ARI (4)	VOC	15.00	14.90
		HCl	0.36	1.56
		COCl ₂	0.21	0.504
		PVCl	0.09	0.03
		Pivalic Acid	0.12	0.02
		Decanoyl Chloride	<0.01	<0.01
		Neodecanoic Acid	<0.01	<0.01
11	North Boiler	CO 0.665	2.91	
		NO _x	2.66	11.65
		PM ₁₀	0.14	0.62
		SO ₂	0.011	0.05
		VOC	0.11	0.48
12	North ARI (4)	See footnote		
F13	North Chloroformates Area Fugitives (5)	VOC	0.56	2.45
14	Caustic Scrubber	VOC	2.44	0.26

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			lb/hr	TPY
		HCl	<0.01	<0.01
F15	Storage Tanks Fugitives (5) 0.79	VOC		0.18
F16	PRC Area Fugitives (5) 0.61	VOC		0.14
F17	PRC Stg. Fugitives (5) 0.35	VOC		0.08
F19	New Products Area Fugitives (5)	VOC	0.83	3.617
		COCl ₂	<0.001	0.002
		HCl	0.001	0.007
F24	South ARI Area Fugitives (5)	VOC	0.076	0.333
		COCl ₂	<0.001	<0.001
25	Reactor RX-3100	PM ₁₀ (L-ASP) PM ₁₀ Vent	0.03	0.016
26	Cyclo Vent	VOC	<0.001	<0.001
		PM ₁₀ (Z-ASP)	0.02	0.045
F27	Dryer Fugitives (5)	PM ₁₀ (Z-ASP)	<0.01	<0.01
28	Fitz Dryer Vent	VOC	0.06	0.031
		PM ₁₀ (Z-ASP)	0.11	0.41
29	Rx Charge Baghouse	VOC	<0.01	<0.01
		PM ₁₀ (Z-ASP)	<0.01	<0.01
30	Acid Storage Vent	HCl	<0.01	<0.01
F31	Z-ASP Reactor Rx Fugitives (5)	VOC (Na-Z-ASP)	0.52	1.92
F36	BCF Storage Tank	VOC	0.035	0.15

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			lb/hr	TPY
	Fugitives (5)			
F37	DMC Storage Tank Fugitives (5)	VOC	0.02	0.10
38	Centrifuge Hold Tank	VOC	0.008	<0.001
39	Centrifuge	VOC	0.09	0.022
40	Centrifuge Trans Tank	VOC	0.001	<0.001
41	DMO Loading	VOC	0.012	0.001
42	Water Scrubber	HCl	<0.01	<0.01
43	Water Scrubber	HCl	<0.01	<0.01
44	DDI Drumming	VOC	<0.01	<0.01
45	Reactor RX-3100 VOC Vent	VOC (Na-L-ASP)	<0.01	<0.01
46	Tank T-3111	VOC (Na-Z-ASP)	<0.01	<0.01
47	Tank T-3112	VOC (Na-Z-ASP)	<0.01	<0.01
48	Tank T-3113	VOC (Na-Z-ASP)	<0.01	<0.01
49	Tank T-3114	VOC (Na-Z-ASP)	<0.01	<0.01
F50	Tank Area Fugitives (5) <0.01	VOC (Na-Z-ASP)		<0.01
51	Truck Loading Emissions <0.01	VOC (Na-Z-ASP)		<0.01
V-ETOH-1	Ethanol Tank Vent	Ethanol	5.48	0.21

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			lb/hr	TPY
V-MEOH-1	Methanol Tank Vent	Methanol	7.29	0.31
V-2EHOH-1	2EHOH Tank Vent	2-Ethyl Hexanol	0.04	<0.01
V-ISOBUT-1	IBOH Tank Vent	Isobutanol	1.78	0.03
V-SECBUT-1	SBOH Tank Vent	sec-Butyl Alcohol	2.71	0.04
V-DEG-1	DEG Tank Vent	Diethylene Glycol	<0.01	<0.01
V-BZOH-1	BZOH Tank Vent	Benzyl Alcohol	0.015	<0.01
F-TRK-LDG	Load Area Fugitives (5) 1.23		VOC	0.28
F-BZOH	BZOH Storage Tank Fugitives (5)	VOC	0.02	0.09
F-MOSF	Multi-Purpose Organic Synthesis Facility Fugitives (5)	VOC COCl ₂	0.10 <0.01	0.46 <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) BCF - benzyl chloroformate
 BZOH - benzyl alcohol
 CO - carbon monoxide
 COCl₂ - phosgene
 DDI - dimer diisocyanate
 DEG - diethylene glycol
 DMC - dimethyl carbonate
 DMO - 4,4-dimethyl oxazolidinone

2EHOH - 2-ethyl hexanol
 HCl - hydrochloric acid
 IBOH - isobutanol
 L-ASP - L-aspartic Acid
 Na-Z-ASP - sodium salt of carbobenzoxy aspartic acid
 NO_x - total oxides of nitrogen
 PM - particulate matter
 PM₁₀ - particulate matter less than 10 microns
 POBA - polyoxybutylene alcohol
 PRC - polyoxybutylene alcohol chloroformate
 PVC1 - pivaloyl chloride
 SBOH - sec-butyl alcohol
 SO₂ - sulfur dioxide
 VOC - volatile organic compounds as defined in General Rule 101.1
 Z-ASP - carbobenzoxy aspartic acid

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- (4) The permit holder, at his option, may emit all or part of the emissions allowed from the south ARI (EPN 4) through the north ARI (EPN 12). The sum of all emissions from both EPN 4 and EPN 12 may not exceed the maximum allowable emission rates shown for EPN 4.
- (5) 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
 Hrs/year 8,760

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

Dated_____