

# 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

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY
1	Caustic Scrubber	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 <sub>x</sub>	1.48	6.50
		PM <sub>10</sub>	0.079	0.35
		SO <sub>2</sub>	0.0064	0.028
		VOC	0.061	0.27
4	South ARI (4)	VOC	15.00	14.90
		HCl	0.36	1.56
		COCl <sub>2</sub>	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 <sub>x</sub>	2.66	11.65
		PM <sub>10</sub>	0.14	0.62
		SO <sub>2</sub>	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
		HCl	<0.01	<0.01
F15	Storage Tanks Fugitives (5)	VOC	0.18	0.79

F16	PRC (3) Area Fugitives (5)	VOC	0.14	0.61
F17	PRC (3) Storage Fugitives (5)	VOC	0.08	0.35

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#### AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY
F19	New Products Area Fugitives (5)	VOC	0.83	3.617
		COCl <sub>2</sub>	<0.001	0.002
		HCl	0.001	0.007
F24	South ARI Area Fugitives (5)	VOC	0.076	0.333
		COCl <sub>2</sub>	<0.001	<0.001
25	Reactor RX-3100 Vent	PM <sub>10</sub> (L-ASP)	0.03	0.016
26	Cyclo Vent	VOC	<0.001	<0.001
		PM <sub>10</sub> (Z-ASP)	0.02	0.045
F27	Dryer Fugitives (5)	PM <sub>10</sub> (Z-ASP)	<0.01	<0.01
28	Fitz Dryer Vent	VOC	0.06	0.031
		PM <sub>10</sub> (Z-ASP)	0.11	0.41
29	Rx Charge Baghouse	VOC	<0.01	<0.01
		PM <sub>10</sub> (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 (3) Storage Tank Fugitives (5)	VOC	0.035	0.15
F37	DMC (3) 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 (3) Loading	VOC	0.012	0.001
42	Water Scrubber	HCl	<0.01	<0.01
43	Water Scrubber	HCl	<0.01	<0.01
44	DDI (3) 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

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY
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)	VOC (Na-Z-ASP)	<0.01	<0.01
51	Truck Loading Emissions	VOC (Na-Z-ASP)	<0.01	<0.01
V-ETOH-1	Ethanol Tank Vent	Ethanol	5.48	0.21
V-MEOH-1	Methanol Tank Vent	Methanol	7.29	0.31
V-2EHOH-1	2EHOH (3) Tank Vent	2-Ethyl Hexanol	0.04	<0.01
V-ISOBUT-1	IBOH (3) Tank Vent	Isobutanol	1.78	0.03
V-SECBUT-1	SBOH (3) Tank Vent	sec-Butyl Alcohol	2.71	0.04
V-DEG-1	DEG (3) Tank Vent	Diethylene Glycol	<0.01	<0.01
V-BZOH-1	BZOH (3) Tank Vent	Benzyl Alcohol	0.015	<0.01
F-TRK-LDG	Load Area Fugitives (5)	VOC	0.28	1.23
F-BZOH	BZOH (3) Storage Tank Fugitives (5)	VOC	0.02	0.09
F-MOSF	Multi-Purpose Organic Synthesis Facility Fugitives (5)	VOC COCl <sub>2</sub>	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  
 COCl<sub>2</sub> - phosgene  
 DDI - dimer diisocyanate

DEG	- diethylene glycol
DMC	- dimethyl carbonate
DMO	- 4,4-dimethyl oxazolidinone
2EHOH	- 2-ethyl hexanol
HCl	- hydrochloric acid
IBOH	- isobutanol

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

L-ASP	- L-aspartic Acid
Na-Z-ASP	- sodium salt of carbobenzoxy aspartic acid
NO <sub>x</sub>	- total oxides of nitrogen
PM	- particulate matter
PM <sub>10</sub>	- particulate matter less than 10 microns
PRC	- polyoxybutylene alcohol chloroformate
PVCl	- pivaloyl chloride
SBOH	- sec-butyl alcohol
SO <sub>2</sub>	- sulfur dioxide
VOC	- volatile organic compounds as defined in General Rule 101.1
Z-ASP	- carbobenzoxy aspartic acid

- (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

Dated\_\_\_\_\_