

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 8052

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</u> *	<u>Source</u>	<u>Air Contaminant</u>	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	
	TPY			
107	Ammonia PSV	Emergency Relief		
138	Multipurpose Spray Dryer and 0.04 Baghouse FC/FD-11-038	SO <sub>2</sub>	0.01	
		CO	0.39	1.71
		Combustion TOC	0.06	0.28
		NO <sub>x</sub>	1.54	6.73
		Methanol	1.714	7.51
		Formaldehyde	0.580	2.36
		Product PM <sub>10</sub>	1.881	8.24
		Combustion PM <sub>10</sub>	0.15	0.66
151	Ammonia Scrubber	NH <sub>3</sub>	19.70	14.09
		VOC	2.28	1.03
		CO	0.15	0.10
172	Hydrogen Cyanide Scrubber	HCN	0.0005	0.0001
		VOC	<0.01	<0.01
185	Flash Dryer	PM <sub>10</sub>	<0.01	0.08
		SO <sub>2</sub>	<0.01	<0.01
		CO	<0.01	0.05
		VOC	<0.01	<0.01
		NO <sub>x</sub>	0.04	0.18
203	H <sub>2</sub> SO <sub>4</sub> Tank	H <sub>2</sub> SO <sub>4</sub>	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>
225	HCN Surge Tank	Emergency Relief		
232	Flash Dryer	PM <sub>10</sub>	<0.01	0.04
		SO <sub>2</sub>	<0.01	<0.01
		CO	<0.01	0.023
		VOC	<0.01	<0.01
		NO <sub>x</sub>	0.02	0.09
237	Hydrogen Cyanide Tank Scrubber	HCN	0.0505	0.0002
239	Formaldehyde P/V Vent	Emergency Relief		
242	Ammonia Tank	Emergency Relief		
245	Formaldehyde Tank Scrubber	CH <sub>2</sub> O	0.11	0.004
		VOC (5)	0.26	0.09
		CO	0.01	0.002
262	Amine Scrubber	VOC	0.02	<0.01
407	Daxad Tank	VOC	0.01	<0.01
430	Spray Dryer	PM <sub>10</sub>	2.40	10.51
		SO <sub>2</sub>	0.01	0.03
		CO	4.10	16.00
		NO <sub>x</sub>	2.35	10.29

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
		CH <sub>2</sub> O	0.98	4.29
		VOC (5)	21.77	92.42
442	Daxad Tank	VOC	0.01	<0.01
443	Daxad Tank	VOC	0.01	<0.01
444	Daxad Tank	VOC	0.01	<0.01
513	Vent Catch	Emergency Relief		
516	Utility Tank	VOC	0.01	0.02
531	Daxad Tank	VOC	0.01	<0.01
546	Fluid Bed Dryer	VOC (5)	8.22	35.00
		NO <sub>x</sub>	0.91	4.00
		SO <sub>2</sub>	0.01	0.011
		PM <sub>10</sub>	0.53	2.321
		CO	0.68	3.00
		CH <sub>2</sub> O	0.10	0.44
566	Naphthalene Tank	VOC	0.330	2.52
568	Filter Aid Tank	PM <sub>10</sub>	0.0513	<0.001
		VOC	<0.01	<0.01
569	Cake Wash Tank	VOC	0.01	<0.01
571	Prod. Receiver	Emergency Relief		
572	Pre-Filter	Emergency Relief		

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
573	Filter Press	Emergency Relief		
598	Daxad Thermal Oxidizer	CH <sub>2</sub> O	0.059	0.238
		VOC (5)	0.964	4.12
		PM <sub>10</sub>	0.06	0.26
		SO <sub>2</sub>	0.003	0.013
		CO	0.17	0.58
		Combustion VOC	0.03	0.13
		NO <sub>x</sub>	0.50	2.19
723	East Cooling Tower	VOC	0.01	0.01
772	Cooling Tower	VOC	0.01	0.01
817	Fuel Oil Tank	VOC	0.0002	0.001
819	Firewater Pump	PM <sub>10</sub>	0.26	0.0033
		SO <sub>2</sub>	0.24	0.0030
		CO	0.80	0.0100
		VOC	0.29	0.0038
		NO <sub>x</sub>	3.70	0.0460
859	Boiler (3 total)	PM <sub>10</sub>	0.37	1.62
		SO <sub>2</sub>	0.05	0.20
		CO	2.59	11.34
		VOC	0.22	0.98
		NO <sub>x</sub>	10.35	45.34
895	Naphthalene Tank	VOC	0.162	3.792
1129	Glycine Saponifier A	NH <sub>3</sub>	1.65	0.45

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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>
		VOC	0.77	0.21
1132	Glycine Saponifier B	NH <sub>3</sub>	1.65	0.45
		VOC	0.77	0.21
1134	Glycine Saponifier C	NH <sub>3</sub>	1.65	0.45
		VOC	0.77	0.21
1290	DSIDA Tank	VOC	<0.01	<0.01
1560	Purge Liquor Tank	VOC	0.01	0.01
2820	Oxalic Scrubber	PM <sub>10</sub>	0.0084	0.037
2884	Daxad Tank	VOC	0.01	0.01
2914	Naphthalene Tank	VOC	0.163	0.948
2946	Oleum Tank Scrubber	SO <sub>3</sub>	0.001	0.002
4032	Lime Silo	PM <sub>10</sub>	0.00023	<0.0001
4033	Lime Slaker	PM <sub>10</sub>	0.000045	0.0007
		VOC	0.01	<0.01
4034	Prefilter Tank	VOC	0.01	0.06
4035	Filter H <sub>2</sub> O Tank	VOC	0.01	<0.01
4037	Filter Press	VOC	0.01	<0.01
4038	Cake Wash Tank	VOC	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>
4039	Product Receiver	VOC	0.01	0.06
4040	Off Spec Tank	VOC	0.01	0.07
4290	Product Receiver	VOC	0.01	<0.01
4338	Filter Press	VOC	0.01	<0.01
5019	Bersworth Reactor I	NH <sub>3</sub>	0.93	0.17
		VOC	0.42	0.08
5319	Bersworth Reactor II	NH <sub>3</sub>	0.93	0.17
		VOC	0.42	0.08
5357	DSIDA Centrifuge	HCN	0.028	0.0196
5361	DSIDA Steam Jet	HCN	0.028	0.0196
6031	Daxad Tank	VOC	0.01	0.12
6032	Daxad Tank	VOC	0.01	0.01
6033	Chelate Storage Tank	VOC	<0.01	<0.01
6034	Daxad Tank	VOC	0.01	0.13
6035	Chelate Storage Tank	VOC	<0.01	<0.01
6036	NTA-150 Storage Tank	VOC	<0.01	<0.01
7432	CH <sub>2</sub> OPV	Emergency Relief		

7600	Oleum Tank	Emergency Relief		
8000	DSIDA Storage Tank	VOC	<0.01	<0.01
Fugitives	Fugitives (4)	VOC	0.26	1.14
		NH <sub>3</sub>	0.06	0.26

- (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<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
  - SO<sub>3</sub> - sulfur trioxide
  - CO - carbon monoxide
  - HCN - hydrogen cyanide
  - CH<sub>2</sub>O - formaldehyde
  - NH<sub>3</sub> - ammonia
  - H<sub>2</sub>SO<sub>4</sub> - sulfuric acid
  - TOC - total organic carbon

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- (4) Fugitive emissions are an estimate only and should not be

considered as a maximum allowable emission rate.  
(5) Volatile organic compounds exclusive of formaldehyde.

\* 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 \_\_\_\_\_