

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

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Permit Number 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.

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107	Ammonia PSV	Emergency Relief Only (6)		
138	Multipurpose Spray Dryer and Baghouse FC/FD-11-038	SO ₂	0.01	0.04
		CO	0.39	1.71
		VOC	0.06	0.28
		NO _x	1.54	6.75
		Methanol	1.714	7.51
		CH ₂ O	0.58	2.54
		PM ₁₀	2.03	8.90
151	Ammonia Scrubber	NH ₃	3.52	15.42
		VOC	0.34	0.70
		CO	0.15	0.07
172	Hydrogen Cyanide Scrubber	HCN	0.026	0.09
		VOC	<0.01	<0.01
185	Flash Dryer	PM ₁₀	0.02	0.09
		SO ₂	<0.01	<0.01

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		CO	0.04	0.17
		VOC	0.002	0.01
		NO _x	0.05	0.20
203	H ₂ SO ₄ Storage Tank	H ₂ SO ₄	<0.01	<0.01
225	HCN Surge Tank	Emergency Relief Only (6)		
232	Flash Dryer	PM ₁₀	0.01	0.04
		SO ₂	<0.01	<0.01
		CO	0.03	0.11
		VOC	0.002	<0.01
		NO _x	0.03	0.13
237	Hydrogen Cyanide Tank Scrubber	HCN	0.0009	0.0002
239	Formaldehyde P/V Vent	Emergency Relief Only (6)		
242	Aqua Ammonia Storage Tank	Emergency Relief Only (6)		
245	Formaldehyde Storage Tank Scrubber	CH ₂ O	0.012	0.005
		VOC (5)	0.25	0.10
		CO	0.006	0.002
262	Amine Scrubber	VOC	0.02	0.02
407	DAXAD Storage Tank 1	Methanol	0.02	0.004
		CH ₂ O 0.003	0.001	
408	Loading Rack No. 4	Methanol	0.032	0.004
		CH ₂ O 0.006	0.001	

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430	Spray Dryer	PM ₁₀	2.40	10.51
		SO ₂	0.01	0.03
		CO	4.10	16.00
		NO _x	2.35	10.29
		CH ₂ O	0.98	4.29
		VOC (5)	21.77	92.42
442	DAXAD Storage Tank 4	Methanol	0.02	0.01
		CH ₂ O 0.003	0.001	
443	DAXAD Storage Tank 3	Methanol	0.02	0.01
		CH ₂ O 0.003	0.001	
444	DAXAD Storage Tank 2	Methanol	0.02	0.01
		CH ₂ O 0.003	0.001	
516	Furan Utility Tank	Methanol	0.02	0.01
		CH ₂ O	0.004	0.0004
531	DAXAD Storage Tank 5	Methanol	0.02	0.01
		CH ₂ O 0.003	0.001	
546	Fluid Bed Dryer	VOC (5)	8.22	35.00
		NO _x	0.91	4.00
		SO ₂	0.01	0.011
		PM ₁₀	0.53	2.32
		CO	0.68	3.00
		CH ₂ O	0.10	0.44
566	Naphthalene Storage Tank A	VOC	6.04	1.63
568	Filter Aid Tank	Methanol	0.003	0.0001
		CH ₂ O 0.0006	0.00001	
569	Cake Wash Tank	Methanol	0.003	0.0002
		CH ₂ O 0.0006	0.00005	
571	Product Receiver Tank	Methanol	0.021	0.008

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		CH ₂ O 0.004	0.002	
572	Prefilter Tank	Methanol	0.021	0.008
		CH ₂ O 0.004	0.002	
573	Filter Press	Methanol	<0.01	0.001
		CH ₂ O	0.0001	0.00001
598	DAXAD Thermal Oxidizer	CH ₂ O	0.059	0.238
		Methanol	0.964	3.99
		PM ₁₀	0.06	0.26
		SO ₂	0.003	0.013
		CO	0.17	0.58
		Combustion VOC	0.03	0.13
		NO _x	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 ₁₀	0.26	0.0033
		SO ₂	0.24	0.0030
		CO	0.80	0.0100
		VOC	0.29	0.0038
		NO _x	3.70	0.0460
859	Boiler (3 total)	PM ₁₀	0.32	1.41
		SO ₂	0.03	0.11
		CO	3.57	15.64
		VOC	0.23	1.02
		NO _x	4.25	18.62

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895	Naphthalene Storage Tank B	Naphthalene	6.04	1.72
1129	Glycine Saponifier A	Water Vapor Only		
1132	Glycine Saponifier B	Water Vapor Only		
1134	Glycine Saponifier C	Water Vapor Only		
1290	DSIDA Tank	VOC	<0.01	<0.01
1560	Purge Liquor Tank	VOC	0.01	0.01
1744	GR Hotwell Tank	Water Vapor Only		
1749	GR CSEP Feed Tank	Water Vapor Only		
1775	GR Neutralization Tank	Water Vapor Only		
1776	GR Evaporator Feed Tank	Water Vapor Only		
1807	Evaporator Condenser	Water Vapor Only		
1808	Evaporator Condenser	Water Vapor Only		
2884	DAXAD Storage Tank 13	Methanol CH ₂ O 0.001	0.01 0.001	0.01
2914	Naphthalene Storage Tank C	Naphthalene	4.84	0.96
4032	Lime Silo Baghouse	PM ₁₀	0.08	<0.01
4033	Lime Slaker Scrubber	PM ₁₀	0.06	0.01
4034	LCA DAXAD Prefilter Tank	Methanol CH ₂ O 0.004	0.02 0.001	0.01

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4035	LCA DAXAD Unfiltered Water Tank	Methanol CH ₂ O	0.01 0.0006	0.01 0.0001
4037	LCA DAXAD Filter Press	CH ₂ O Methanol	0.0009 <0.01	0.0003 0.001
4038	LCA DAXAD Cake Wash H ₂ O Tank	Methanol CH ₂ O	0.01 0.0006	0.01 0.0001
4039	LCA DAXAD Product Receiver H ₂ O Tank	Methanol CH ₂ O	0.02 0.004	0.01 0.001
4040	Third Product Receiver Tank H ₂ O Tank	Methanol CH ₂ O	0.02 0.004	0.01 0.001
4290	DAXAD Product Receiver H ₂ O Tank	Methanol CH ₂ O	0.02 0.004	0.01 0.0005
4297	Loading Rack No. 2	CH ₂ O Methanol	0.006 0.032	0.001 0.004
4338	Third Filter Press	CH ₂ O Methanol	0.0002 0.01	0.00004 0.001
4513	Prefilter Tank H ₂ O Tank	Methanol CH ₂ O	0.02 0.004	0.01 0.002
5019	Bersworth Reactor I	NH ₃ VOC	0.93 0.42	0.17 0.08
5319	Bersworth Reactor II	NH ₃ VOC	0.93 0.42	0.17 0.08
5357	DSIDA Centrifuge	HCN	0.028	0.02

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5361	DSIDA Steam Jet	HCN	0.028	0.02
6031	DAXAD Storage Tank 6	CH ₂ O	0.002	0.001
		Methanol	0.01	0.01
6032	DAXAD Storage Tank 7	CH ₂ O	0.003	0.003
		Methanol	0.02	0.02
6033	DAXAD Storage Tank	CH ₂ O	0.005	0.004
		Methanol	0.03	0.02
6034	DAXAD Storage Tank 9	CH ₂ O	0.002	0.002
		Methanol	0.009	0.009
6035	DAXAD Storage Tank	CH ₂ O	0.005	0.004
		Methanol	0.03	0.02
6036	NTA-150 Storage Tank	VOC	<0.01	<0.01
6064	Loading Rack No. 5	Methanol	0.03	0.01
		CH ₂ O 0.006	0.001	
6065	Loading Rack No. 1	Methanol	0.03	0.01
		CH ₂ O 0.007	0.001	
6121	Loading Rack No. 9	Methanol	0.03	0.01
		CH ₂ O 0.005	0.0004	
6122	Loading Rack No. 8	Methanol	0.03	0.01
		CH ₂ O 0.005	0.0004	
6123	Loading Rack No. 7	Methanol	0.03	0.01
		CH ₂ O 0.005	0.0004	
7432	CH ₂ O PV	Emergency Relief Only (6)		

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7717	DAXAD Storage Tank 12	Methanol CH ₂ O 0.002	0.01 0.001	0.01
8000	DSIDA Storage Tank	VOC	<0.01	<0.01
8003	Chelate Acid Centrifuge Discharge Hopper	PM ₁₀	0.03	0.03
155171	DAXAD Storage Tank	CH ₂ O Methanol	0.002 0.01	0.001 0.01
155181	DAXAD Storage Tank	CH ₂ O Methanol	0.002 0.01	0.001 0.01
0600201	Cooling Tower	Water Vapor Only		
1700901	Cartridge Dust Collector	PM ₁₀	<0.01	<0.001
1700905	Glycine Conditioning Train Baghouse	PM ₁₀	0.03	0.14
Fugitives	Fugitives (4)	VOC NH ₃	0.26 0.06	1.14 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 - particulate matter, suspended in the atmosphere, including PM₁₀.

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.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code Section 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

CO - carbon monoxide

HCN - hydrogen cyanide

CH₂O - formaldehyde

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NH₃ - ammonia

H₂SO₄ - sulfuric acid

- (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.
- (6) There are no emissions authorized by this permit at these points.

* 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

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated _____