

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 27849

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)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
1	Storage Tank 006 Vent	Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	0.029	0.001
3	Storage Tank 005 Vent	KOH	0.03	0.002
4	Storage Tank 004 Vent	NaOH	0.02	<0.002
6	Storage Tank 002 Vent	PFU Resin	0.09	0.01
		Phenol **	0.001	<0.0001
		HCHO **	<0.00001	<0.00001
8	Storage Tank 020 Vent	Fuel Oil	0.004	0.0001
10	Storage Tank 014 Vent	Diesel	0.04	0.0003
11	Storage Tank 015 Vent	Gasoline	20.08	0.40
15	No. 10 Silo Baghouse Exhaust	Lignite PM <sub>10</sub>	0.04	0.01
18	Nauta Mixer Bag Filter Vent	Lignite PM <sub>10</sub>	0.78	1.25
		Methanol	15.00	0.89
		Ethanol	50.00	7.60
		Isopar M	10.00	1.99
19	Storage Tank 003 Vent (Caustic Day Tank)	NaOH	0.03	0.0012
		KOH	0.03	0.0012
20	Storage Tank 008 Vent (S-35-9 Polymer)	S-35-9	0.42	0.13
		Isopar M ***	0.01	0.00034

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
21	Storage Tank 001 Vent (Resin)	PFU Resin	0.09	0.01
		Phenol **	0.001	<0.00007
		HCHO **	<0.00001	<0.000001
22	Storage Tank 007 Vent (TR-70 )	TR-70	1.32	0.12
		Ethanol ****	1.00	0.04
		Methanol ****	0.21	0.01
27	Boiler Stack	PM <sub>10</sub>	0.004	0.0009
		CO	0.02	0.004
		NO <sub>x</sub>	0.13	0.03
		SO <sub>2</sub>	0.01	0.002
		VOC	0.004	0.001
28	Product Transfer Bag Filter Exhaust	Lignite PM <sub>10</sub>	0.50	1.89
		Isopar M	3.00	0.29
		Ethanol	1.00	0.29
		Methanol	0.30	0.09
29	No. 1 Mill Bag Filter Exhaust	Lignite PM <sub>10</sub>	0.78	2.95
		Fuel Oil (VOC)	0.045	0.20
		NO <sub>x</sub>	2.17	9.52
		CO	0.20	0.87
		SO <sub>2</sub>	1.26	5.50
		Isopar M	313.41	68.00
		Ethanol	58.60	13.51
		Methanol	17.58	3.14
30	No. 8 Dust Collector Exhaust	Lignite PM <sub>10</sub>	0.02	0.02
31	Storage Tank 021 Vent (Waste Oil)	Motor Oil	0.006	<0.00001
33	No. 2 or No. 3 Packer Bag Filter Exhaust	Lignite PM <sub>10</sub>	0.10	0.25

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
34	No. 1 Packer Bag Filter Exhaust	Lignite PM <sub>10</sub>	0.30	0.30
36	No. 4 Dust Collector Exhaust	Lignite PM <sub>10</sub>	0.04	0.04
FUG-1	Building 11 (4)	Ethanol	0.0033	0.0086
		Methanol	0.0007	0.0018
		Isopar M	<0.0001	<0.00026
FUG-2	Liquid Raw Material (4) Unloading\Drumming	S-35-9	2.55	0.04
		Isopar M ***	0.004	<0.0007
		TR-70	3.29	0.02
		Methanol ****	0.028	0.0019
		Ethanol ****	2.49	0.02
		PFU Resin	<0.01	<0.002
		Phenol **	0.001	0.00002
		HCHO **	<0.00001	<0.000001
		Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	<0.000002	<0.00009
		KOH	<0.00002	0.00077
		NaOH	<0.00001	<0.0004
		TI Sulfate	0.03	0.0006
FUG-3	Pump Seals (4)	Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	0.02	0.04
		NaOH/KOH	0.02	0.04
		PFU Resin	0.02	0.04
FUG-4	Fueling Operations (4)	Diesel	0.29	<0.04
		Gasoline	13.98	0.08
		Fuel Oil	<0.001	<0.0001
FUG-5	Rotary Transfer Valves (4) 0.03	Lignite TSP		0.02
		Lignite PM <sub>10</sub>	0.01	0.016

FUG-6	Pump Seals (4)	Isopar M	<0.0008	<0.00022
		Ethanol	0.03	0.01
		Methanol	<0.004	0.0011
		NaOH	0.02	0.04
		PFU Resin	0.02	0.04

- (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.

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#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (3) TSP - total suspended particulate, including PM<sub>10</sub>  
PM<sub>10</sub> - particulate matter less than 10 microns in diameter  
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  
CO - carbon monoxide  
Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> - sodium bichromate  
KOH - potassium hydroxide  
NaOH - sodium hydroxide  
HCHO - formaldehyde

- (4) Fugitive emissions are an estimate only.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule and parameters:

Hrs/day\_\_\_\_Days/week\_\_\_\_Weeks/year\_\_\_\_or Hrs/year 8,760

\* Hourly and Annual Production: Limited to rates specified on "confidential" page 3-8 dated January 28, 1996 of the permit application.

\*\* Included in PFU Resin emission rate.

\*\*\* Included in S-35-9 emission rate.

\*\*\*\* Included in TR-70 emission rate.

Dated\_\_\_\_\_