

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20807

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*
1A	Preheater/Incinerator No. 1 (5)	SO <sub>2</sub>	45.95	159.52
		NO <sub>x</sub> 6.62	22.5	
		CO 23.6	80.4	
		VOC 9.60	24.90	
		PM 8.46	26.8	
		H <sub>2</sub> S 0.036	1.33	
		HCl 2.21	7.50	
		Benzene (6)	0.132	0.45
		Ethyl Benzene (6)	0.655	2.23
		Methyl Chloride (6)	0.042	0.143
		HAPS 0.164	0.558	
3	Boiler (5)	PM <sub>10</sub>	0.053	0.23
		NO <sub>x</sub>	0.70	3.07
		SO <sub>2</sub>	0.004	0.018
		CO	0.59	2.58
		VOC	0.04	0.17
		HAPS	0.013	0.058
29 and 30	Loading Rack (4 and 7) Fugitives	PM	0.81	1.05
		PM <sub>10</sub>	0.08	0.11
		CO	0.04	0.05
		VOC	3.12	3.88
		H <sub>2</sub> S	<0.01	0.014
31	BD Oil Loading (4)	VOC	0.22	0.02

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
32, 32A, and 67 through 72	Truck and Rail (4 and 7) Unloading Racks	PM	0.006	0.0013
		PM <sub>10</sub>	0.0006	<0.0002
		CO	0.024	0.073
		VOC	0.022	0.005
		H <sub>2</sub> S	0.023	0.071
22 through 28	Pouring Shed (4 and 7) Vents	PM	5.13	0.64
		PM <sub>10</sub>	4.03	0.06
		CO	0.05	0.04
		VOC	5.02	2.41
		Vinyl Acetate	1.92	1.44
33	Asphalt Solvent Cold Cleaner (4)	VOC	0.08	0.33
4	Tank 1 Heater (5)	PM <sub>10</sub>	0.006	0.027
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
5	Tank 2 Heater (5)	PM <sub>10</sub>	0.006	0.027
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
6	Tank 3 Heater (5)	PM <sub>10</sub>	0.006	0.027
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
7	Tank 4 Heater (5)	PM <sub>10</sub>	0.006	0.027

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
8	Tank 5 Heater (5)	PM <sub>10</sub>	0.006	0.027
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
9	Tank 35 Heater (5)	PM <sub>10</sub>	0.006	0.027
		SO <sub>2</sub>	0.0005	0.002
		NO <sub>x</sub>	0.08	0.35
		CO	0.07	0.30
		VOC	0.004	0.019
		HAPS	<0.0015	<0.007
10	Tank 100 Heater (5)	PM <sub>10</sub>	0.011	0.05
		SO <sub>2</sub>	0.001	0.004
		NO <sub>x</sub>	0.15	0.66
		CO	0.13	0.55
		VOC	0.008	0.04
		HAPS	<0.003	0.012
11	Tank 201 Heater (5)	PM <sub>10</sub>	0.02	0.083
		SO <sub>2</sub>	0.0015	0.007
		NO <sub>x</sub>	0.25	1.10
		CO	0.21	0.92
		VOC	0.014	0.06
		HAPS	<0.005	0.021
12	Tank 202 Heater (5)	PM <sub>10</sub>	0.02	0.083
		SO <sub>2</sub>	0.0015	0.007

		NO <sub>x</sub>	0.25	1.10
		CO	0.21	0.92
		VOC	0.014	0.06
		HAPS	<0.005	0.021
63	Tank 401A Heater (5)	PM <sub>10</sub>	0.009	0.04
		SO <sub>2</sub>	0.0007	0.003
		NO <sub>x</sub>	0.12	0.53
		CO	0.10	0.44
		VOC	0.007	0.03
		HAPS	<0.0023	<0.001
64	Tank 401B Heater (5)	PM <sub>10</sub>	0.009	0.04
		SO <sub>2</sub>	0.0007	0.003
		NO <sub>x</sub>	0.12	0.53
		CO	0.10	0.44
		VOC	0.007	0.03
		HAPS	<0.0023	<0.001
65	Tank 402A Heater (5)	PM <sub>10</sub>	0.009	0.04
		SO <sub>2</sub>	0.0007	0.003
		NO <sub>x</sub>	0.12	0.53
		CO	0.10	0.44
		VOC	0.007	0.03
		HAPS	<0.0023	<0.001
66	Tank 402B Heater (5)	PM <sub>10</sub>	0.009	0.04
		SO <sub>2</sub>	0.0007	0.003
		NO <sub>x</sub>	0.12	0.53
		CO	0.10	0.44
		VOC	0.007	0.03
		HAPS	<0.0023	<0.001

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- (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 PM<sub>10</sub>.  
PM<sub>10</sub> - 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 30 Texas Administrative Code Section 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
CO - carbon monoxide  
HCl - hydrogen chloride/hydrochloric acid  
H<sub>2</sub>S - hydrogen sulfide  
HAPS - any of the Section 112(b), Federal Clean Air Act named compounds
- (4) Fugitives emissions are an estimate only.
- (5) Hazardous Air Pollutant (HAP) emissions are included in the PM and VOC allowable emission rates and the speciated values are reflected on the Table 1(a)s submitted with the permit amendment application. When a HAP compound hourly emission rate exceeded 0.04 pound per hour, the compound and its emission rate were listed on the maximum allowable emission rates table; however, the HAP compound emissions are also included in the PM and VOC emission rates.
- (6) Included in PM and VOC emission rate
- (7) Emission rates are the sum of the emissions for all the listed emission points

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

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

Maximum allowable hourly and annual throughputs of oxidized, unoxidized, and treated asphalt are shown in the confidential section of the Amendment Application dated August 1999 with revisions dated December 22, 1999.

Dated: April 7, 2000