

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 7799 and PSD-TX-860

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 *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
EH28A	B-2101A Furnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70
EH28B	B-2101B Furnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70
EH29C	B-2101CFurnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70
EH29D	B-2101D Furnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70
EH30E	B-2101E Furnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
EH30F	B-2101F Furnace	CO	4.82	20.80
		NO <sub>x</sub>	16.60	71.80
		PM <sub>10</sub>	0.60	2.60
		SO <sub>2</sub>	0.07	0.30
		VOC	0.17	0.70
EH41	L.P. Flare	VOC	11.40	49.80
		CO	10.00	43.80
		NO <sub>x</sub>	2.00	8.60
EH42	H.P. Flare	VOC	26.60	116.60
		CO	18.10	79.20
		NO <sub>x</sub>	2.50	11.10
EH47	B-6901 A, B 1500 psia Boilers	CO	8.40	20.80
		NO <sub>x</sub>	99.70	317.00
		PM <sub>10</sub>	5.00	12.20
		SO <sub>2</sub>	0.50	1.40
		VOC	1.50	3.60
EH48	B-6101A Furnace	CO	2.90	7.90
		NO <sub>x</sub>	29.00	101.00
		PM <sub>10</sub>	1.70	4.60
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.40
EH49	B-6101B Furnace	CO	2.90	7.90
		NO <sub>x</sub>	29.00	101.00
		PM <sub>10</sub>	1.70	4.60
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.40

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
EH50	B-6101C Furnace	CO	2.90	7.90
		NO <sub>x</sub>	29.00	101.00
		PM <sub>10</sub>	1.70	4.60
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.40
EH51	B-6151A Furnace	CO	2.70	7.60
		NO <sub>x</sub>	27.50	95.50
		PM <sub>10</sub>	1.60	4.50
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.30
EH52	B-6151B Furnace	CO	2.70	7.60
		NO <sub>x</sub>	27.50	95.50
		PM <sub>10</sub>	1.60	4.50
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.30
EH54	B-6101D Furnace	CO	2.90	7.90
		NO <sub>x</sub>	29.00	101.00
		PM <sub>10</sub>	1.70	4.60
		SO <sub>2</sub>	0.20	0.50
		VOC	0.50	1.40
EH58	Propylene Storage Flare	CO	0.22	0.96
		NO <sub>x</sub>	0.07	0.30
		PM <sub>10</sub>	0.01	0.01
		VOC	<0.01	<0.01
EH6301A	B-6301A Furnace	CO	1.31	5.98
		NO <sub>x</sub>	19.09	66.86
		PM <sub>10</sub>	1.59	5.57

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Emission *	Source	Air Contaminant	Emission Rates	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		SO <sub>2</sub>	0.19	0.67
		VOC	0.45	1.11
EH6301B	B-6301B Furnace	CO	1.31	5.98
		NO <sub>x</sub>	19.09	66.86
		PM <sub>10</sub>	1.59	5.57
		SO <sub>2</sub>	0.19	0.67
		VOC	0.45	1.11
EM1	Cooling Tower No.1	VOC	4.20	18.40
EM3	Cooling Tower No. 3	VOC	1.05	4.60
EM26	Cooling Tower No. 4	VOC	0.55	2.41
EM5	Cooling Tower No. 5	VOC	1.01	4.42
EM23	Decoking Vent B-6101A, B	CO	11.67	1.40
		PM <sub>10</sub>	6.67	0.80
		SO <sub>2</sub>	0.33	0.04
EM24	Decoking Vent B-6101C, D	CO	11.67	1.40
		PM <sub>10</sub>	6.67	0.80
		SO <sub>2</sub>	0.33	0.04
EM25	Decoking Vent B-6151A, B	CO	10.00	1.20
		PM <sub>10</sub>	5.83	0.70
		SO <sub>2</sub>	0.33	0.04
EM27	Decoking Vent B-2101A, B	CO	54.00	2.40
		PM <sub>10</sub>	31.00	1.40
		SO <sub>2</sub>	1.60	0.07
EM28	Decoking Vent B-2101C, D	CO	54.00	2.40

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
		PM <sub>10</sub>	31.00	1.40
		SO <sub>2</sub>	1.60	0.07
EM29	Decoking Vent B-2101E	CO	54.00	1.20
		PM <sub>10</sub>	31.00	0.70
		SO <sub>2</sub>	1.60	0.04
EM30	Decoking Vent B-2101F	CO	54.00	1.20
		PM <sub>10</sub>	31.00	0.70
		SO <sub>2</sub>	1.60	0.04
EM31	USC I Carbon Canisters	VOC	0.64	2.78
EM32	USC II Carbon Canisters	VOC	0.39	1.73
EM33	Ethylene Unit Carbon Canisters 2.16	VOC (5)		0.49
EM34	Ethylene Unit Carbon Canisters	VOC (5)		0.49
EM6301	Decoking Vent B-6301A, B	CO	27.06	1.20
		PM <sub>10</sub>	12.07	0.54
		SO <sub>2</sub>	0.81	0.04
EF1	Ethylene Unit Fugitives (4) 169.70	VOC		38.74
EF6	Rail Loading Fugitives (4)	VOC	0.67	2.95
EF7	USC II Fugitives (4)	VOC	15.98	70.01
EF8	USC-I Fugitives (4)	VOC	15.51	67.93

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Emission * Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
EF9	Tank Farm Fugitives (4)	VOC	15.66	68.61
EF12	RGCB Fugitives (4)	VOC	4.55	19.94
EF14	Tank 36 Area Fugitives (4)	VOC	1.23	5.41
EF16	Off-Site Flare Fugitives (4)	VOC		0.63
	2.74			
EF18	P/P Splitter Fugitives (4)	VOC	1.24	5.43

(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) CO - carbon monoxide  
 NO<sub>x</sub> - total oxides of nitrogen  
 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.  
 SO<sub>2</sub> - sulfur dioxide  
 VOC - volatile organic compounds as defined in General Rule 101.1

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) The total annual combined emission rate from Emission Point Nos. EM33 and EM34 shall not exceed 2.16 tons per year.

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

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

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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>

Dated\_\_\_\_\_