

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Flexible Permit No. 22690 and PSD-TX-751M1

This table lists the emission caps and individual emission limitations for all sources of air contaminants on the applicant's property covered by this permit. The emission caps and individual emission limitations shown are those derived from information submitted as part of the application for permit and allowed for these facilities. Any proposed change in emission caps or individual emission limitations will require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr

CO SOURCES

12-36-1	12 Furnace 1	CO
12-36-1a	12 Furnace 1a	CO
12-36-1an	12 Furnace 1an	CO
12-36-1b	12 Furnace 1b	CO
12-36-1c	12 Furnace 1c	CO
12-36-1d	12 Furnace 1d	CO
12-36-1e	12 Furnace 1e	CO
12-36-1f	12 Furnace 1f	CO
12-36-1g	12 Furnace 1g	CO
12-36-1h	12 Furnace 1h	CO
12-36-2	12 Furnace 2	CO
12-36-2a	12 Furnace 2a	CO
12-36-3	12 Furnace 3	CO
22-36-1	22 Furnace 1	CO
22-36-2	22 Furnace 2	CO
22-36-3	22 Furnace 3	CO
22-36-4	22 Furnace 4	CO
22-36-5	22 Furnace 5	CO
22-36-6	22 Furnace 6	CO
22-36-7	22 Furnace 7	CO
22-36-8	22 Furnace 8	CO

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
24-36-1	24 Furnace 1	CO	
24-36-2	24 Furnace 2	CO	
24-36-3	24 Furnace 3	CO	
24-36-4	24 Furnace 4	CO	
24-36-5	24 Furnace 5	CO	
24-36-6	24 Furnace 6	CO	
24-36-8	24 Furnace 8	CO	
22-36-9	24 Furnace 9	CO	
33-36-1	33 Furnace 1	CO	
33-36-2	33 Furnace 2	CO	
33-36-3	33 Furnace 3	CO	
33-36-4	33 Furnace 4	CO	
33-36-5	33 Furnace 5	CO	
33-36-6	33 Furnace 6	CO	
33-36-7	33 Furnace 7	CO	
33-36-8	33 Furnace 8	CO	
33-36-9	33 Furnace 9	CO	
U12 Decoke	U12 Decoke	CO	
U22 Decoke	U22 Decoke	CO	
U24 Decoke	U24 Decoke	CO	
U33 Decoke	U33 Decoke	CO	
56-61-5	12 Flare 5	CO	
56-61-6	12 Flare 6	CO	
56-61-10	22 Flare 10	CO	
56-61-12	22 Flare 12	CO	

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Cap or		Emission	
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
56-61-14	24 Flare 14	CO	
56-61-20	24 Flare 20	CO	
56-61-22	33 Flare 22	CO	
Ethylene Area CO Emission Cap			550.00 2050.60

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Cap or		Emission	
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr

NO_x SOURCES

12-36-1	12 Furnace 1	NO _x
12-36-1a	12 Furnace 1a	NO _x
12-36-1an	12 Furnace 1an	NO _x
12-36-1b	12 Furnace 1b	NO _x
12-36-1c	12 Furnace 1c	NO _x
12-36-1d	12 Furnace 1d	NO _x
12-36-1e	12 Furnace 1e	NO _x
12-36-1f	12 Furnace 1f	NO _x
12-36-1g	12 Furnace 1g	NO _x
12-36-1h	12 Furnace 1h	NO _x
12-36-2	12 Furnace 2	NO _x
12-36-2a	12 Furnace 2a	NO _x
12-36-3	12 Furnace 3	NO _x

NO _x Emission Cap For Unit 12 Cracking Furnaces	32.00
138.28	

22-36-1	22 Furnace 1	NO _x
22-36-2	22 Furnace 2	NO _x
22-36-3	22 Furnace 3	NO _x
22-36-4	22 Furnace 4	NO _x
22-36-5	22 Furnace 5	NO _x
22-36-6	22 Furnace 6	NO _x
22-36-7	22 Furnace 7	NO _x
22-36-8	22 Furnace 8	NO _x

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
24-36-1	24 Furnace 1	NO _x	
24-36-2	24 Furnace 2	NO _x	
24-36-3	24 Furnace 3	NO _x	
24-36-4	24 Furnace 4	NO _x	
24-36-5	24 Furnace 5	NO _x	
24-36-6	24 Furnace 6	NO _x	
24-36-8	24 Furnace 8	NO _x	
22-36-9	24 Furnace 9	NO _x	
33-36-1	33 Furnace 1	NO _x	
33-36-2	33 Furnace 2	NO _x	
33-36-3	33 Furnace 3	NO _x	
33-36-4	33 Furnace 4	NO _x	
33-36-5	33 Furnace 5	NO _x	
33-36-6	33 Furnace 6	NO _x	
33-36-7	33 Furnace 7	NO _x	
33-36-8	33 Furnace 8	No _x	
33-36-9	33 Furance 9	No _x	
U12 Decoke	U12 Decoke	NO _x	
U22 Decoke	U22 Decoke	NO _x	
U24 Decoke	U24 Decoke	NO _x	
U33 Decoke	U33 Decoke	NO _x	

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Cap or			Emission	
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>	
Point No. (1) TPY	Name (2)	Name (3)	lb/hr	
56-61-5	12 Flare 5	NO _x		
56-61-6	12 Flare 6	NO _x		
56-61-10	22 Flare 10	NO _x		
56-61-12	22 Flare 12	NO _x		
56-61-14	24 Flare 14	NO _x		
56-61-20	24 Flare 20	NO _x		
56-61-22	33 Flare 22	NO _x		
NO _x Emission Cap (Not Including Unit 12)			517.00	2211.26

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr

PM SOURCES

12-36-1	12 Furnace 1	PM
12-36-1a	12 Furnace 1a	PM
12-36-1an	12 Furnace 1an	PM
12-36-1b	12 Furnace 1b	PM
12-36-1c	12 Furnace 1c	PM
12-36-1d	12 Furnace 1d	PM
12-36-1e	12 Furnace 1e	PM
12-36-1f	12 Furnace 1f	PM
12-36-1g	12 Furnace 1g	PM
12-36-1h	12 Furnace 1h	PM
12-36-2	12 Furnace 2	PM
12-36-2a	12 Furnace 2a	PM
12-36-3	12 Furnace 3	PM
22-36-1	22 Furnace 1	PM
22-36-2	22 Furnace 2	PM
22-36-3	22 Furnace 3	PM
22-36-4	22 Furnace 4	PM
22-36-5	22 Furnace 5	PM
22-36-6	22 Furnace 6	PM
22-36-7	22 Furnace 7	PM
22-36-8	22 Furnace 8	PM
24-36-1	24 Furnace 1	PM
24-36-2	24 Furnace 2	PM

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
24-36-3	24 Furnace 3	PM	
24-36-4	24 Furnace 4	PM	
24-36-5	24 Furnace 5	PM	
24-36-6	24 Furnace 6	PM	
24-36-8	24 Furnace 8	PM	
22-36-9	24 Furnace 9	PM	
33-36-1	33 Furnace 1	PM	
33-36-2	33 Furnace 2	PM	
33-36-3	33 Furnace 3	PM	
33-36-4	33 Furnace 4	PM	
33-36-5	33 Furnace 5	PM	
33-36-6	33 Furnace 6	PM	
33-36-7	33 Furnace 7	PM	
33-36-8	33 Furnace 8	PM	
U12 Decoke	U12 Decoke	PM	
U22 Decoke	U22 Decoke	PM	
U24 Decoke	U24 Decoke	PM	
U33 Decoke	U33 Decoke	PM	
Ethylene Area PM	Emission Cap (Includes PM ₁₀)		81.50
	360.32		

VOC SOURCES

12-36-1	12 Furnace 1	VOC
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AIR CONTAMINANTS DATA

Cap or	Emission		
Individual			
Emission	Source	Air Contaminant	<u>Emission</u>
<u>Limit</u> *			
Point No. (1)	Name (2)	Name (3)	lb/hr
TPY			
12-36-1a	12 Furnace 1a	VOC	
12-36-1an	12 Furnace 1an	VOC	
12-36-1b	12 Furnace 1b	VOC	
12-36-1c	12 Furnace 1c	VOC	
12-36-1d	12 Furnace 1d	VOC	
12-36-1e	12 Furnace 1e	VOC	
12-36-1f	12 Furnace 1f	VOC	
12-36-1g	12 Furnace 1g	VOC	
12-36-1h	12 Furnace 1h	VOC	
12-36-2	12 Furnace 2	VOC	
12-36-2a	12 Furnace 2a	VOC	
12-36-3	12 Furnace 3	VOC	
22-36-1	22 Furnace 1	VOC	
22-36-2	22 Furnace 2	VOC	
22-36-3	22 Furnace 3	VOC	
22-36-4	22 Furnace 4	VOC	
22-36-5	22 Furnace 5	VOC	
22-36-6	22 Furnace 6	VOC	
22-36-7	22 Furnace 7	VOC	
22-36-8	22 Furnace 8	VOC	
24-36-1	24 Furnace 1	VOC	
24-36-2	24 Furnace 2	VOC	
24-36-3	24 Furnace 3	VOC	
24-36-4	24 Furnace 4	VOC	

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
24-36-5	24 Furnace 5	VOC	
24-36-6	24 Furnace 6	VOC	
24-36-8	24 Furnace 8	VOC	
22-36-9	24 Furnace 9	VOC	
33-36-1	33 Furnace 1	VOC	
33-36-2	33 Furnace 2	VOC	
33-36-3	33 Furnace 3	VOC	
33-36-4	33 Furnace 4	VOC	
33-36-5	33 Furnace 5	VOC	
33-36-6	33 Furnace 6	VOC	
33-36-7	33 Furnace 7	VOC	
33-36-8	33 Furnace 8	VOC	
33-36-9	33 Furnace 9	VOC	
56-61-5	12 Flare 5	VOC	
56-61-6	12 Flare 6	VOC	
56-61-10	22 Flare 10	VOC	
56-61-12	22 Flare 12	VOC	
56-61-14	24 Flare 14	VOC	
56-61-20	24 Flare 20	VOC	
56-61-22	33 Flare 22	VOC	
12-0-0	12 Fugitives (4)	VOC	
22-0-0	22 Fugitives (4)	VOC	

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr
24-0-0	24 Fugitives (4)	VOC	
33-0-0	33 Fugitives (4)	VOC	
VOC Cap recalculated for all Fugitive Areas			21.60
	86.00		
33-95-310	33 O/W Separator	VOC	
54-12-5	12 Cooling Tower	VOC	
54-22-12	22 Cooling Tower	VOC	
54-24-13	24 Cooling Tower	VOC	
54-33-17	33 Cooling Tower	VOC	
TK-84	Tank 84 DAC	VOC	
TK-401	Tank 401 DAC	VOC	
TK-245	Tank 245 DAC	VOC	
TK-246	Tank 246 DAC	VOC	
Ethylene Area VOC Emission Cap (Including Benzene and Fugitives)			58.00
	248.85		

Benzene Sources (5)

12-0-0	12 Fugitives (4)	Benzene
22-0-0	22 Fugitives (4)	Benzene
24-0-0	24 Fugitives (4)	Benzene

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Cap or			Emission	
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>	
Point No. (1) TPY	Name (2)	Name (3)	lb/hr	
33-0-0	33 Fugitives (4)	Benzene		
33-95-310	33 O/W Separator	Benzene		
54-12-5	12 Cooling Tower	Benzene		
54-22-12	22 Cooling Tower	Benzene		
54-24-13	24 Cooling Tower	Benzene		
54-33-17	33 Cooling Tower	Benzene	0.04	0.17
TK-84	Tank 84 DAC	Benzene		
TK-401	Tank 401 DAC	Benzene		
TK-245	Tank 245 DAC	Benzene	0.32	0.70
TK-246	Tank 246 DAC	Benzene	0.32	0.70
Ethylene Area Benzene Emission Cap (Including individual limits)			1.04	4.55

- (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
 VOC - volatile organic compounds as defined in General Rule 101.1
 NO_x - total oxides of nitrogen
 CO - carbon monoxide
 PM₁₀ - particulate matter of 10 microns or less
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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Cap or			Emission
Individual Emission Limit *	Source	Air Contaminant	<u>Emission</u>
Point No. (1) TPY	Name (2)	Name (3)	lb/hr

(5) Included in VOC Cap.

* 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_____