

## Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 22690 and PSDTX751M1

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, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

### Air Contaminants Data

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
CO Sources				
Ethylene Unit 22				
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		
Ethylene Unit 24				
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		
24-36-7	24 Steam Superheater 7	CO		
24-36-8	24 DAC Hydrotreater Heater 8	CO		
24-36-9	24 Furnace 9	CO		
Ethylene Unit 33				
33-36-1	33 Furnace 1	CO (6)		
33-36-2	33 Furnace 2	CO (6)		
33-36-3	33 Furnace 3	CO (6)		
33-36-4	33 Furnace 4	CO (6)		
33-36-5	33 Furnace 5	CO (6)		
33-36-6	33 Furnace 6	CO (6)		
33-36-7	33 Furnace 7	CO (6)		
33-36-8	33 Furnace 8	CO (6)		
33-36-9	33 Furnace 9	CO (6)		
Flare System				
56-61-10	Unit 21, 22 Low-Pressure Flare 10	CO		
56-61-12	Unit 22 High-Pressure Flare 12	CO		
56-61-14	Unit 24 High-Pressure Flare 14	CO		
56-61-20	Unit 24 Low-Pressure Flare 20	CO		
56-61-22	Unit 33 Process Flare 22	CO (6)		
	CO Emission Cap for the EPNs Listed Above	CO	478.74	2058.44
Decoking Equipment MSS (9)				
22-95-3, 22-95-3A, 22-95-3B, and 22-95-3C	U22 Decoke	CO		
24-95-300	U24 Decoke	CO		
	U33 Decoke	CO		

## Emission Sources - Maximum Allowable Emission Rates

33-95-376 and 33-95-376A				
	<b>CO Emission Cap for the EPNs Listed Above</b>	<b>CO</b>	<b>792.82</b>	<b>89.86</b>
<b>Flare System</b> 56-61-4 56-61-8 56-61-9	Unit 10D/18 Process Flare 4 Unit 10, 12 Low-Pressure Flare 8 Unit 10, 12 High-Pressure Flare 9	CO CO CO		
	<b>CO Emission Cap for the EPNs Listed Above</b>	<b>CO</b>	<b>63.13</b>	<b>40.89</b>
<b>Flare System MSS (9)</b> 56-61-4 56-61-8 56-61-9 56-61-10 56-61-12 56-61-14 56-61-20 56-61-22	Unit 10D/18 Process Flare 4 Unit 10, 12 Low-Pressure Flare 8 Unit 10, 12 High-Pressure Flare 9 Unit 21, 22 Low-Pressure Flare 10 Unit 22 High-Pressure Flare 12 Unit 24 High-Pressure Flare 14 Unit 24 Low-Pressure Flare 20 Unit 33 Process Flare 22	CO CO CO CO CO CO CO CO		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>CO</b>	<b>7505.60</b>	<b>137.12</b>
<b>H<sub>2</sub>S Sources</b>				
<b>Flare System</b> 56-61-4 56-61-8 56-61-9 56-61-10 56-61-12 56-61-14 56-61-20 56-61-22	Unit 10D/18 Process Flare 4 Unit 10, 12 Low-Pressure Flare 8 Unit 10, 12 High-Pressure Flare 9 Unit 21, 22 Low-Pressure Flare 10 Unit 22 High-Pressure Flare 12 Unit 24 High-Pressure Flare 14 Unit 24 Low-Pressure Flare 20 Unit 33 Process Flare 22	H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S H <sub>2</sub> S		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>H<sub>2</sub>S</b>	<b>0.06</b>	<b>0.26</b>
<b>NO<sub>x</sub> Sources</b>				
<b>Ethylene Unit 22</b> 22-36-1 22-36-2 22-36-3 22-36-4 22-36-5 22-36-6 22-36-7 22-36-8	22 Furnace 1 22 Furnace 2 22 Furnace 3 22 Furnace 4 22 Furnace 5 22 Furnace 6 22 Furnace 7 22 Furnace 8 Propylene Compressor Turbine	NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub> NO <sub>x</sub>		

Emission Sources - Maximum Allowable Emission Rates

22-95-27				
<b>Ethylene Unit 24</b>				
24-36-1	24 Furnace 1	NO <sub>x</sub>		
24-36-2	24 Furnace 2	NO <sub>x</sub>		
24-36-3	24 Furnace 3	NO <sub>x</sub>		
24-36-4	24 Furnace 4	NO <sub>x</sub>		
24-36-5	24 Furnace 5	NO <sub>x</sub>		
24-36-6	24 Furnace 6	NO <sub>x</sub>		
24-36-7	24 Steam Superheater 7	NO <sub>x</sub>		
24-36-8	24 DAC Hydrotreater Heater 8	NO <sub>x</sub>		
24-36-9	24 Furnace 9	NO <sub>x</sub>		

## Emission Sources - Maximum Allowable Emission Rates

**Ethylene Unit 33**

33-36-1	33 Furnace 1	NO <sub>x</sub> (6)
33-36-2	33 Furnace 2	NO <sub>x</sub> (6)
33-36-3	33 Furnace 3	NO <sub>x</sub> (6)
33-36-4	33 Furnace 4	NO <sub>x</sub> (6)
33-36-5	33 Furnace 5	NO <sub>x</sub> (6)
33-36-6	33 Furnace 6	NO <sub>x</sub> (6)
33-36-7	33 Furnace 7	NO <sub>x</sub> (6)
33-36-8	33 Furnace 8	NO <sub>x</sub> (6)
33-36-9	33 Furnace 9	NO <sub>x</sub> (6)

**Flare System**

56-61-10	Unit 21, 22 Low-Pressure Flare 10	NO <sub>x</sub>
56-61-12	Unit 22 High-Pressure Flare 12	NO <sub>x</sub>
56-61-14	Unit 24 High-Pressure Flare 14	NO <sub>x</sub>
56-61-20	Unit 24 Low-Pressure Flare 20	NO <sub>x</sub>
56-61-22	Unit 33 Process Flare 22	NO <sub>x</sub> (6)

**Emission Cap for the EPNs Listed Above**

NO <sub>x</sub>	436.25	1896.24
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**Flare System**

56-61-4	Unit 10D/18 Process Flare 4	NO <sub>x</sub>
56-61-8	Unit 10, 12 Low-Pressure Flare 8	NO <sub>x</sub>
56-61-9	Unit 10, 12 High-Pressure Flare 9	NO <sub>x</sub>

**NO<sub>x</sub> Emission Cap for the EPNs Listed Above**

NO <sub>x</sub>	12.39	8.00
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**Flare System****MSS (9)**

56-61-4	Unit 10D/18 Process Flare 4	NO <sub>x</sub>
56-61-8	Unit 10, 12 Low-Pressure Flare 8	NO <sub>x</sub>
56-61-9	Unit 10, 12 High-Pressure Flare 9	NO <sub>x</sub>
56-61-10	Unit 21, 22 Low-Pressure Flare 10	NO <sub>x</sub>
56-61-12	Unit 22 High-Pressure Flare 12	NO <sub>x</sub>
56-61-14	Unit 24 High-Pressure Flare 14	NO <sub>x</sub>
56-61-20	Unit 24 Low-Pressure Flare 20	NO <sub>x</sub>
56-61-22	Unit 33 Process Flare 22	NO <sub>x</sub>

**Emission Cap for the EPNs Listed Above**

NO <sub>x</sub>	1513.37	28.82
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**PM/PM<sub>10</sub> Sources****Cooling Towers**

54-22-5	Unit 12 Cooling Tower (CT-5)	PM
54-22-6	Unit 10ABC Cooling Tower (CT-6)	PM
54-22-7	Unit 10ABC Cooling Tower (CT-7)	PM
54-22-9	Unit 10D/18 Cooling Tower (CT-9)	PM
54-22-12	Unit 21/22 Cooling Tower (CT-12)	PM
54-22-13	Unit 24 Cooling Tower (CT-13)	PM
54-22-17	Unit 33 Cooling Tower (CT-17)	PM

**Emission Cap for the EPNs Listed Above**

PM	27.16	118.97
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## Emission Sources - Maximum Allowable Emission Rates

<b>Ethylene Unit 22</b> 22-36-1 22-36-2 22-36-3 22-36-4 22-36-5 22-36-6 22-36-7 22-36-8	22 Furnace 1 22 Furnace 2 22 Furnace 3 22 Furnace 4 22 Furnace 5 22 Furnace 6 22 Furnace 7 22 Furnace 8	PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>		
<b>Ethylene Unit 24</b> 24-36-1 24-36-2 24-36-3 24-36-4 24-36-5 24-36-6 24-36-7 24-36-8 24-36-9	24 Furnace 1 24 Furnace 2 24 Furnace 3 24 Furnace 4 24 Furnace 5 24 Furnace 6 24 Steam Superheater 7 24 DAC Hydrotreater Heater 8 24 Furnace 9	PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>		
<b>Ethylene Unit 33</b> 33-36-1 33-36-2 33-36-3 33-36-4 33-36-5 33-36-6 33-36-7 33-36-8 33-36-9	33 Furnace 1 33 Furnace 2 33 Furnace 3 33 Furnace 4 33 Furnace 5 33 Furnace 6 33 Furnace 7 33 Furnace 8 33 Furnace 9	PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6) PM <sub>10</sub> (6)		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>PM<sub>10</sub></b>	<b>41.44</b>	<b>181.52</b>
<b>MSS (9)</b> 22-95-3, 22-95-3A, 22-95-3B, and 22-95-3C 24-95-300 33-95-376 and 33-95-376A CPC-ABLAST CPC-PAINT Catalyst	U22 Decoke U24 Decoke U33 Decoke  Abrasive Blasting Painting Catalyst Handling	PM  PM PM  PM PM PM		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>PM</b>	<b>621.98</b>	<b>67.66</b>
<b>SO<sub>2</sub> Sources</b>				
<b>Ethylene Unit 22</b> 22-36-1 22-36-2 22-36-3 22-36-4				

## Emission Sources - Maximum Allowable Emission Rates

<b>Cooling Towers</b>				
54-22-5	Unit 12 Cooling Tower (CT-5)	PM		
54-22-6	Unit 10ABC Cooling Tower (CT-6)	PM		
54-22-7	Unit 10ABC Cooling Tower (CT-7)	PM		
54-22-9	Unit 10D/18 Cooling Tower (CT-9)	PM		
54-22-12	Unit 21/22 Cooling Tower (CT-12)	PM		
54-22-13	Unit 24 Cooling Tower (CT-13)	PM		
54-22-17	Unit 33 Cooling Tower (CT-17)	PM		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>PM</b>	<b>27.16</b>	<b>118.97</b>
<b>Ethylene Unit 22</b>				
22-36-1	22 Furnace 1	PM <sub>10</sub>		
22-36-2	22 Furnace 2	PM <sub>10</sub>		
22-36-3	22 Furnace 3	PM <sub>10</sub>		
22-36-4	22 Furnace 4	PM <sub>10</sub>		
22-36-5	22 Furnace 5	PM <sub>10</sub>		
22-36-6	22 Furnace 6	PM <sub>10</sub>		
22-36-7	22 Furnace 7	PM <sub>10</sub>		
22-36-8	22 Furnace 8	PM <sub>10</sub>		
<b>Ethylene Unit 24</b>				
24-36-1	24 Furnace 1	PM <sub>10</sub>		
24-36-2	24 Furnace 2	PM <sub>10</sub>		
24-36-3	24 Furnace 3	PM <sub>10</sub>		
24-36-4	24 Furnace 4	PM <sub>10</sub>		
24-36-5	24 Furnace 5	PM <sub>10</sub>		
24-36-6	24 Furnace 6	PM <sub>10</sub>		
24-36-7	24 Steam Superheater 7	PM <sub>10</sub>		
24-36-8	24 DAC Hydrotreater Heater 8	PM <sub>10</sub>		
24-36-9	24 Furnace 9	PM <sub>10</sub>		
<b>Ethylene Unit 33</b>				
33-36-1	33 Furnace 1	PM <sub>10</sub> (6)		
33-36-2	33 Furnace 2	PM <sub>10</sub> (6)		
33-36-3	33 Furnace 3	PM <sub>10</sub> (6)		
33-36-4	33 Furnace 4	PM <sub>10</sub> (6)		
33-36-5	33 Furnace 5	PM <sub>10</sub> (6)		
33-36-6	33 Furnace 6	PM <sub>10</sub> (6)		
33-36-7	33 Furnace 7	PM <sub>10</sub> (6)		
33-36-8	33 Furnace 8	PM <sub>10</sub> (6)		
33-36-9	33 Furnace 9	PM <sub>10</sub> (6)		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>PM<sub>10</sub></b>	<b>41.44</b>	<b>181.52</b>
<b>MSS (9)</b>				
22-95-3, 22-95-3A, 22-95-3B, and 22-95-3C	U22 Decoke	PM		
24-95-300	U24 Decoke	PM		
33-95-376 and 33-95-376A	U33 Decoke	PM		
CPC-ABLAST	Abrasive Blasting	PM		
CPC-PAINT	Painting	PM		
	Catalyst Handling	PM		

Emission Sources - Maximum Allowable Emission Rates

Catalyst				
	<b>Emission Cap for the EPNs Listed Above</b>	<b>PM</b>	<b>621.98</b>	<b>67.66</b>



## Emission Sources - Maximum Allowable Emission Rates

SO <sub>2</sub> Sources				
<b>Ethylene Unit 22</b>				
22-36-1	22 Furnace 1	SO <sub>2</sub>		
22-36-2	22 Furnace 2	SO <sub>2</sub>		
22-36-3	22 Furnace 3	SO <sub>2</sub>		
22-36-4	22 Furnace 4	SO <sub>2</sub>		
22-36-5	22 Furnace 5	SO <sub>2</sub>		
22-36-6	22 Furnace 6	SO <sub>2</sub>		
22-36-7	22 Furnace 7	SO <sub>2</sub>		
22-36-8	22 Furnace 8	SO <sub>2</sub>		
<b>Ethylene Unit 24</b>				
24-36-1	24 Furnace 1	SO <sub>2</sub>		
24-36-2	24 Furnace 2	SO <sub>2</sub>		
24-36-3	24 Furnace 3	SO <sub>2</sub>		
24-36-4	24 Furnace 4	SO <sub>2</sub>		
24-36-5	24 Furnace 5	SO <sub>2</sub>		
24-36-6	24 Furnace 6	SO <sub>2</sub>		
24-36-7	24 Steam Superheater 7	SO <sub>2</sub>		
24-36-8	24 DAC Hydrotreater Heater 8	SO <sub>2</sub>		
24-36-9	24 Furnace 9	SO <sub>2</sub>		
<b>Ethylene Unit 33</b>				
33-36-1	33 Furnace 1	SO <sub>2</sub> (6)		
33-36-2	33 Furnace 2	SO <sub>2</sub> (6)		
33-36-3	33 Furnace 3	SO <sub>2</sub> (6)		
33-36-4	33 Furnace 4	SO <sub>2</sub> (6)		
33-36-5	33 Furnace 5	SO <sub>2</sub> (6)		
33-36-6	33 Furnace 6	SO <sub>2</sub> (6)		
33-36-7	33 Furnace 7	SO <sub>2</sub> (6)		
33-36-8	33 Furnace 8	SO <sub>2</sub> (6)		
33-36-9	33 Furnace 9	SO <sub>2</sub> (6)		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>SO<sub>2</sub></b>	<b>223.95</b>	<b>374.53</b>
<b>Flare System</b>				
56-61-4	Unit 10D/18 Process Flare 4	SO <sub>2</sub>		
56-61-8	Unit 10, 12 Low-Pressure Flare 8	SO <sub>2</sub>		
56-61-9	Unit 10, 12 High-Pressure Flare 9	SO <sub>2</sub>		
56-61-10	Unit 21, 22 Low-Pressure Flare 10	SO <sub>2</sub>		
56-61-12	Unit 22 High-Pressure Flare 12	SO <sub>2</sub>		
56-61-14	Unit 24 High-Pressure Flare 14	SO <sub>2</sub>		
56-61-20	Unit 24 Low-Pressure Flare 20	SO <sub>2</sub>		
56-61-22	Unit 33 Process Flare 22	SO <sub>2</sub> (6)		
	<b>Emission Cap for the EPNs Above</b>	<b>SO<sub>2</sub></b>	<b>18.05</b>	<b>24.72</b>
VOC Sources				
<b>Ethylene Unit 22</b>				
22-36-1	22 Furnace 1	VOC		
22-36-2	22 Furnace 2	VOC		
22-36-3	22 Furnace 3	VOC		

Emission Sources - Maximum Allowable Emission Rates

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		
<b>Ethylene Unit 24</b>				
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		
24-36-5	24 Furnace 5	VOC		
24-36-6	24 Furnace 6	VOC		
24-36-7	24 Steam Superheater 7	VOC		
24-36-8	24 DAC Hydrotreater Heater 8	VOC		
24-36-9	24 Furnace 9	VOC		

## Emission Sources - Maximum Allowable Emission Rates

<b>Ethylene Unit 33</b>				
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		
<b>Process Fugitive Equipment</b>				
10.1-0-0	Unit 10AC Process Fugitives (8)	VOC		
10.2-0-0	Unit 10D Process Fugitives (8)	VOC		
10.3-0-0	Unit 10B Process Fugitives (8)	VOC		
12-0-0	Unit 12 Process Fugitives (8)	VOC		
18-0-0	Unit 18 Process Fugitives (8)	VOC		
21-0-0	Unit 21 Process Fugitives (8)	VOC		
24.1-0-0	Unit 24.1 Process Fugitives (8)	VOC		
22-0-0	Unit 22 Process Fugitives (8)	VOC		
24-0-0	Unit 24 Process Fugitives (8)	VOC		
33-0-0	Unit 33 Process Fugitives (8) (11)	VOC		
<b>Cooling Towers</b>				
54-22-5	Unit 12 Cooling Tower (CT-5)	VOC		
54-22-6	Unit 10ABC Cooling Tower (CT-6)	VOC		
54-22-7	Unit 10ABC Cooling Tower (CT-7)	VOC		
54-22-9	Unit 10D/18 Cooling Tower (CT-9)	VOC		
54-22-12	Unit 21/22 Cooling Tower (CT-12)	VOC		
54-22-13	Unit 24 Cooling Tower (CT-13)	VOC		
54-22-17	Unit 33 Cooling Tower (CT-17)	VOC		
<b>Fixed-Roof Storage Tanks</b>				
24-95-314	Methanol Storage Tank	VOC		
33-95-10	Methanol Storage Tank	VOC		
33-95-14	TBC Storage Tank	VOC		
<b>Lube/Seal Reservoirs</b>				
10-95-328	D-328 Seal Oil Reservoir	VOC		
10-95-357	D-357 Lube/Seal Oil Reservoir	VOC		
18-95-54	D-54 Lube/Seal Oil Reservoir	VOC		
21-95-120	D-120 Lube/Seal Oil Reservoir	VOC		
22-95-100	D-100 Lube Oil Reservoir	VOC		
22-95-101	D-101 Seal Oil Reservoir	VOC		
22-95-120	D-120 Lube/Seal Oil Reservoir	VOC		
22-95-130	D-130 Lube/Seal Oil Reservoir	VOC		
24-95-130	D-304 Lube/Seal Oil Reservoir	VOC		
24-95-304	D-305 Lube/Seal Oil Reservoir	VOC		
24-95-305	D-306 Lube/Seal Oil Reservoir	VOC		
24-95-306	Expander Lube Oil Reservoir	VOC		
24-95-307	C-101 (Cracked Gas)	VOC		
33-95-15	C-102 (Ethylene)	VOC		
33-95-17	C-103 (Propylene)	VOC		

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33-95-19	C-101 (Cracked Gas)	VOC		
33-95-390	C-102 (Ethylene)	VOC		
33-95-392	C-103 (Propylene)	VOC		
33-95-394	C-357 (Propylene)- 2nd vent	VOC		
10-95-3572	C-357 (Propylene)- degas chamber	VOC		
10-95-357A	C-100 (Cracked Gas)	VOC		
24-95-319	C-101 (Ethylene)	VOC		
24-95-320	C-102 (Propylene)	VOC		
24-95-321				
<b>Sumps</b>				
10.1-SUMP1	10.1 Oily Water Sewer Sump	VOC		
12-SUMP1	12 Oily Water Sewer Sump	VOC		
21/22-SUMP1	21/22 Oily Water Sewer Sump	VOC		
24-SUMP2	24 Ethylene Sodium Hydroxide Sump	VOC		
24-SUMP3	24 Oily Water Sewer Sump	VOC		
33-SUMP1	33 Sodium Hydroxide Sump	VOC		
33-SUMP2	33 Water Sludge Pit	VOC		
33-SUMP3	33 Oily Water Sewer Sump	VOC		
33-SUMP4	33 Blowdown Drum Sump	VOC		
<b>Flare System</b>				
56-61-4	Unit 10D/18 Process Flare 4	VOC		
56-61-8	Unit 10, 12 Low-Pressure Flare 8	VOC		
56-61-9	Unit 10, 12 High-Pressure Flare 9	VOC		
56-61-10	Unit 21, 22 Low-Pressure Flare 10	VOC		
56-61-12	Unit 22 High-Pressure Flare 12	VOC		
56-61-14	Unit 24 High-Pressure Flare 14	VOC		
56-61-20	Unit 24 Low-Pressure Flare 20	VOC		
56-61-22	Unit 33 Process Flare 22	VOC		
<b>Atmospheric Vents</b>				
10ABC-AV	Unit 10ABC Analyzer Vents	VOC		
10D-AV	Unit 10D Analyzer Vents	VOC		
12-AV	Unit 12 Analyzer Vents	VOC		
18-AV	Unit 18 Analyzer Vents	VOC		
21-AV	Unit 21 Analyzer Vents	VOC		
22-AV	Unit 22 Analyzer Vents	VOC		
24-AV	Unit 24 Analyzer Vents	VOC		
33-AV	Unit 33 Analyzer Vents	VOC		
	<b>Emission Cap for the EPNs Listed Above</b>	<b>VOC</b>	<b>127.95</b>	<b>494.24</b>
<b>MSS (9)</b>				
56-61-4	Unit 10D/18 Process Flare 4	VOC		
56-61-8	Unit 10, 12 Low-Pressure Flare 8	VOC		
56-61-9	Unit 10, 12 High-Pressure Flare 9	VOC		
56-61-10	Unit 21, 22 Low-Pressure Flare 10	VOC		
56-61-12	Unit 22 High-Pressure Flare 12	VOC		
56-61-14	Unit 24 High-Pressure Flare 14	VOC		
56-61-20	Unit 24 Low-Pressure Flare 20	VOC		
56-61-22	Unit 33 Process Flare 22	VOC		
CPC-Paint	Painting	VOC		
MSSATM	Atmospheric Venting/Purging (See	VOC		

Emission Sources - Maximum Allowable Emission Rates

	Attachment B for a list of activities)			
	<b>Emission Cap for the EPNs Above</b>	<b>VOC</b>	<b>5247.80</b>	<b>124.41</b>

## Emission Sources - Maximum Allowable Emission Rates

**Benzene Sources (5)****Process Fugitive Equipment**

10.1-0-0	Unit 10AC Process Fugitives (8)	Benzene
10.2-0-0	Unit 10D Process Fugitives (8)	Benzene
10.3-0-0	Unit 10B Process Fugitives (8)	Benzene
12-0-0	Unit 12 Process Fugitives (8)	Benzene
21-0-0	Unit 21 Process Fugitives (8)	Benzene
24.1-0-0	Unit 24.1 Process Fugitives (8)	Benzene
22-0-0	Unit 22 Process Fugitives (8)	Benzene
24-0-0	Unit 24 Process Fugitives (8)	Benzene
33-0-0	Unit 33 Process Fugitives (8) (11)	Benzene

**Emission Cap for the EPNs Listed Above**

<b>Benzene</b>	<b>1.74</b>	<b>7.60</b>
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**MSS (9)**

56-61-4	Unit 10D/18 Process Flare 4	Benzene
56-61-8	Unit 10, 12 Low-Pressure Flare 8	Benzene
56-61-9	Unit 10, 12 High-Pressure Flare 9	Benzene
56-61-10	Unit 21, 22 Low-Pressure Flare 10	Benzene
56-61-12	Unit 22 High-Pressure Flare 12	Benzene
56-61-14	Unit 24 High-Pressure Flare 14	Benzene
56-61-20	Unit 24 Low-Pressure Flare 20	Benzene
56-61-22	Unit 33 Process Flare 22	Benzene
MSSATM	Atmospheric Venting/Purging (See Attachment B for a list of activities)	Benzene

**Emission Cap for the EPNs Listed Above**

<b>Benzene</b>	<b>176.72</b>	<b>2.88</b>
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**Individual Emission Rate Limits**

22-95-27	Propylene Compressor Turbine	CO	12.05	52.77
		PM <sub>10</sub>	0.84	3.70
		SO <sub>2</sub>	0.44	1.91
		VOC	1.41	6.17
33-36-10	33 Cracking Furnace 10	CO	93.90	37.60
		NH <sub>3</sub>	1.50	4.78
		NO <sub>x</sub>	19.50	17.10
		PM	2.42	8.49
		PM <sub>10</sub>	2.42	8.49
		PM <sub>2.5</sub>	2.42	8.49

Emission Sources - Maximum Allowable Emission Rates

SO <sub>2</sub> 8.65 8.04				
		VOC	1.75	6.14
33.1-0-0	U33 F-10 Fugitives (8)	NH <sub>3</sub>	0.21	0.91
		VOC (10)	0.12	0.51
		Benzene	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates

- (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
NH <sub>3</sub>	- ammonia
NO <sub>x</sub>	- total oxides of nitrogen
PM	- total particulate matter, suspended in the atmosphere, including PM <sub>10</sub> and PM <sub>2.5</sub> , as represented
PM <sub>10</sub>	- total particulate matter equal to or less than 10 microns in diameter, including PM <sub>2.5</sub> , as represented
PM <sub>2.5</sub>	- particulate matter equal to or less than 2.5 microns in diameter
SO <sub>2</sub>	- sulfur dioxide
VOC	- volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Benzene from other facilities is included in the VOC cap and does not contribute to the benzene emission cap.
- (6) This pollutant is also covered by Permit No. PSDTX751M1.
- (7) Reserved.
- (8) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (9) Applies to maintenance, startup, and shutdown (MSS).
- (10) Benzene emissions are included in the VOC emissions limit.
- (11) Excluding fugitives associated with Furnace 10.

Date: May 17, 2013