

EMISSION SOURCES - FINAL EMISSION CAPS

Permit No. 6308 and PSD-TX-137M1

This table lists the maximum allowable emission caps 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
65A	Crude II Charge Heater A	NO _x		
65B	Crude II Vacuum Heater A	NO _x		
66A	Crude II Charge Heater B	NO _x		
66B	Crude II Vacuum Heater B	NO _x		
69, 70	DIH A Heater	NO _x		
67, 68	DIH B Heater	NO _x		
110	FCCU II Charge Heater	NO _x		
111	FCCU II Scrubber	NO _x		
101, 102	Hydrobon Charge Heater	NO _x		
99, 100	Hydrobon Reboiler	NO _x		
80	VGO Charge Heater	NO _x		
81	VGO Fractionator Heater	NO _x		
74	KHDS Charge Heater	NO _x		
77	DHDS Charge Heater	NO _x		
35, 36	BTX Rx No. 1 Heater	NO _x		
37, 38	BTX Rx No. 2 Heater	NO _x		
33, 34	BTX Depentanizer Reboiler		NO _x	
3	MFP Rx No. 1 Heater	NO _x		
4A	MFP Rx No. 2 Heater	NO _x		
4	MFP Stabilizer Reboiler	NO _x		
120	Isom DIH Reboiler	NO _x		
1, 2	Alky Reboiler	NO _x		
25	Sulfolane Heater	NO _x		
FL-118	Marine VRU	NO _x		
	Emissions Cap	NO _x	411.7	1519.1
65A	Crude II Charge Heater A	CO		
65B	Crude II Vacuum Heater A	CO		
66A	Crude II Charge Heater B	CO		
66B	Crude II Vacuum Heater B	CO		
69, 70	DIH A Heater	CO		

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
67, 68	DIH B Heater	CO		
110	FCCU II Charge Heater	CO		
111	FCCU II Scrubber	CO		
101, 102	Hydrobon Charge Heater	CO		
99, 100	Hydrobon Reboiler	CO		
80	VGO Charge Heater	CO		
81	VGO Fractionator Heater	CO		
74	KHDS Charge Heater	CO		
77	DHDS Charge Heater	CO		
35, 36	BTX Rx No. 1 Heater	CO		
37, 38	BTX Rx No. 2 Heater	CO		
33, 34	BTX Depentanizer Reboiler		CO	
3	MFP Rx No. 1 Heater	CO		
4A	MFP Rx No. 2 Heater	CO		
4	MFP Stabilizer Reboiler	CO		
120	Isom DIH Reboiler	CO		
1, 2	Alky Reboiler	CO		
25	Sulfolane Heater	CO		
FL-118	Marine VRU	CO		
	Emissions Cap	CO	278.2	530.9
65A	Crude II Charge Heater A	SO ₂		
65B	Crude II Vacuum Heater A	SO ₂		
66A	Crude II Charge Heater B	SO ₂		
66B	Crude II Vacuum Heater B	SO ₂		
69, 70	DIH A Heater	SO ₂		
67, 68	DIH B Heater	SO ₂		
110	FCCU II Charge Heater	SO ₂		
111	FCCU II Scrubber	SO ₂		
101, 102	Hydrobon Charge Heater	SO ₂		
99, 100	Hydrobon Reboiler	SO ₂		
80	VGO Charge Heater	SO ₂		
81	VGO Fractionator Heater	SO ₂		
74	KHDS Charge Heater	SO ₂		
77	DHDS Charge Heater	SO ₂		
35, 36	BTX Rx No. 1 Heater	SO ₂		
37, 38	BTX Rx No. 2 Heater	SO ₂		

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			<u>lb/hr</u>	<u>TPY</u>
33, 34	BTX Depentanizer Reboiler		SO ₂	
3	MFP Rx No. 1 Heater	SO ₂		
4A	MFP Rx No. 2 Heater	SO ₂		
4	MFP Stabilizer Reboiler	SO ₂		
120	Isom DIH Reboiler	SO ₂		
1, 2	Alky Reboiler	SO ₂		
25	Sulfolane Heater	SO ₂		
	Emissions Cap	SO ₂	262.0	499.3
65A	Crude II Charge Heater A	PM		
65B	Crude II Vacuum Heater A	PM		
66A	Crude II Charge Heater B	PM		
66B	Crude II Vacuum Heater B	PM		
69, 70	DIH A Heater	PM		
67, 68	DIH B Heater	PM		
110	FCCU II Charge Heater	PM		
111	FCCU II Scrubber	PM		
101, 102	Hydrobon Charge Heater	PM		
99, 100	Hydrobon Reboiler	PM		
80	VGO Charge Heater	PM		
81	VGO Fractionator Heater	PM		
74	KHDS Charge Heater	PM		
77	DHDS Charge Heater	PM		
35, 36	BTX Rx No. 1 Heater	PM		
37, 38	BTX Rx No. 2 Heater	PM		
33, 34	BTX Depentanizer Reboiler		PM	
3	MFP Rx No. 1 Heater	PM		
4A	MFP Rx No. 2 Heater	PM		
4	MFP Stabilizer Reboiler	PM		
120	Isom DIH Reboiler	PM		
1, 2	Alky Reboiler	PM		
25	Sulfolane Heater	PM		
	Emissions Cap	PM	57.1	220.5
65A	Crude II Charge Heater A	VOC		
65B	Crude II Vacuum Heater A	VOC		

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
66A	Crude II Charge Heater B	VOC		
66B	Crude II Vacuum Heater B	VOC		
69, 70	DIH A Heater	VOC		
67, 68	DIH B Heater	VOC		
F-61	Crude II/DIH Fugitives (4)		VOC	
110	FCCU II Charge Heater	VOC		
111	FCCU II Scrubber	VOC		
F-112	FCCU II Fugitives (4)	VOC		
F-44	FCCU I Fugitives (4)	VOC		
101, 102	Hydrobon Charge Heater	VOC		
99, 100	Hydrobon Reboiler	VOC		
F-98	Hydrobon Fugitives (4)	VOC		
80	VGO Charge Heater	VOC		
81	VGO Fractionator Heater	VOC		
F-79	Isomax Fugitives (4)	VOC		
74	KHDS Charge Heater	VOC		
77	DHDS Charge Heater	VOC		
F-72	KHDS/DHDS Fugitives (4)	VOC		
35, 36	BTX Rx No. 1 Heater	VOC		
37, 38	BTX Rx No. 2 Heater	VOC		
33, 34	BTX Depentanizer Reboiler		VOC	
F-55	BTX Fugitives (4)	VOC		
3	MFP Rx No. 1 Heater	VOC		
4A	MFP Rx No. 2 Heater	VOC		
4	MFP Stabilizer Reboiler	VOC		
F-48	MFP Fugitives (4)	VOC		
120	Isom DIH Reboiler	VOC		
F-121	Isom Fugitives (4)	VOC		
1, 2	Alky Reboiler	VOC		
F-50	Alkylation Fugitives (4)	VOC		
25	Sulfolane Heater	VOC		
F-53	Sulfolane Fugitives (4)	VOC		
F-58	Butadiene Saturation Fugitives (4)		VOC	
F-124	Cyclohexane Fugitives (4)		VOC	
F-123	MTBE Fugitives (4)	VOC		
F-DIM	Dimersol Fugitives (4)	VOC		

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
F-200	Benzene Tank Piping Fugitives (4)	VOC		
F-26	Terminal No. 2 Fugitives (4)	VOC		
F-30	Terminal No. 3 Fugitives (4)	VOC		
F-202	Gas Blending Fugitives (4)	VOC		
FL-118	Marine VRU	VOC		
92	Xylene Loading	VOC		
C-103	Alkylation Cooling Tower	VOC		
C-104	MFP Cooling Tower	VOC		
C-105	FCCU I Cooling Tower	VOC		
C-106	Crude I Cooling Tower	VOC		
C-107	Sulfolane Cooling Tower	VOC		
C-108	BTX Cooling Tower	VOC		
C-109	Crude II Cooling Tower	VOC		
C-113	FCCU II Cooling Tower	VOC		
E11TKS2	Tank E11TKS2	VOC		
E11TKS3	Tank E11TKS3	VOC		
E13TKS25	Tank E13TKS25	VOC		
E11TKS43	Tank E11TKS43	VOC		
E11TKR19	Tank E11TKR19	VOC		
E11TKR20	Tank E11TKR20	VOC		
E11TK320	Tank E11TK320	VOC		
E11TK321	Tank E11TK321	VOC		
E18TK101	Tank E18TK101	VOC		
E18TK102	Tank E18TK102	VOC		
E18TK103	Tank E18TK103	VOC		
E18TK107	Tank E18TK107	VOC		
E10TK108	Tank E10TK108	VOC		
E10TK109	Tank E10TK109	VOC		
E18TK125	Tank E18TK125	VOC		
E18TKF3	Tank E18TKF3	VOC		
E11TKJ1	Tank E11TKJ1	VOC		
E11TKJ2	Tank E11TKJ2	VOC		
E11TKS23	Tank E11TKS23	VOC		
E11TKR17	Tank E11TKR17	VOC		
E11TKR18	Tank E11TKR18	VOC		
E11TKS32	Tank E11TKS32	VOC		

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
E11TKR9	Tank E11TKR9	VOC		
E11TKR11	Tank E11TKR11	VOC		
E11TKS1	Tank E11TKS1	VOC		
E11TKS5	Tank E11TKS5	VOC		
E11TKS8	Tank E11TKS8	VOC		
E11TKS41	Tank E11TKS41	VOC		
E11TKS42	Tank E11TKS42	VOC		
E12TK113	Tank E12TK113	VOC		
E12TK114	Tank E12TK114	VOC		
E12TK115	Tank E12TK115	VOC		
E12TK117	Tank E12TK117	VOC		
E11TKS6	Tank E11TKS6	VOC		
E11TKS7	Tank E11TKS7	VOC		
E11TKS30	Tank E11TKS30	VOC		
E11TKS31	Tank E11TKS31	VOC		
E18TK144	Tank E18TK144	VOC		
E11TK322	Tank E11TK322	VOC		
E11TK324	Tank E11TK324	VOC		
E11TK328	Tank E11TK328	VOC		
E18TK160	Tank E18TK160	VOC		
E13TKS33	Tank E13TKS33	VOC		
E12TK145	Tank E12TK145	VOC		
E12TK146	Tank E12TK146	VOC		
E11TKS22	Tank E11TKS22	VOC		
E11TKR5	Tank E11TKR5	VOC		
E11TKR7	Tank E11TKR7	VOC		
E11TKS21	Tank E11TKS21	VOC		
E11TKR34	Tank E11TKR34	VOC		
E11TKR40	Tank E11TKR40	VOC		
E11TK323	Tank E11TK323	VOC		
E11TKR36	Tank E11TKR36	VOC		
E18TK421	Tank E18TK421	VOC		
E18TK423	Tank E18TK423	VOC		
E18TK100	Tank E18TK100	VOC		
E18TK142	Tank E18TK142	VOC		
E18TK143	Tank E18TK143	VOC		

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E13TKS26	Tank E13TKS26	VOC		
E13TKS27	Tank E13TKS27	VOC		
E13TKS34	Tank E13TKS34	VOC		
E18TK111	Tank E18TK111	VOC		
E18TK112	Tank E18TK112	VOC		
	Emissions Cap	VOC	342.2	571.11
E11TKS23	Tank E11TKS23	Toluene		
E11TKR17	Tank E11TKR17	Toluene		
E11TKR18	Tank E11TKR18	Toluene		
	Emissions Cap	Toluene	0.96	2.59
E11TKS32	Tank E11TKS32	Xylene		
E11TKR9	Tank E11TKR9	Xylene		
E11TKR11	Tank E11TKR11	Xylene		
	Emissions Cap	Xylene	11.95	13.08
E11TKS22	Tank E11TKS22	Benzene		
E11TKR5	Tank E11TKR5	Benzene		
E11TKR7	Tank E11TKR7	Benzene		
	Emissions Cap	Benzene	1.39	2.95
E11TKS21	Tank E11TKS21	Cyclohexane		
E11TKR34	Tank E11TKR34	Cyclohexane		
E11TKR40	Tank E11TKR40	Cyclohexane		
	Emissions Cap	Cyclohexane	0.91	3.09
E11TKT145	Tank E12TK145	MTBE		
E11TK146	Tank E11TK146	MTBE		
	Emissions Cap	MTBE	1.60	3.29

(1) Emission point identification - either specific equipment

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designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in General Rule 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - particulate matter

CO - carbon monoxide

MTBE - methyl-tert-butyl ether

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

(5) An alternative tank may be used for the storage of toluene, provided it meets the requirements of Special Condition No. 20 and the tank emission cap for toluene is not exceeded.

* 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

Dated_____