Fmission

TGU-ICN

Source

EMISSION SOURCES - EMISSIONS CAPS

Permit No. 2167

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

Air Contaminant Fmission

Em1ssion	Source A1	r Contaminant	<u>EM1SS10N</u>	-
<u>Rates*</u> Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
10111C NO. (1)	Nume (2)	Name (5)	10/111	
NO _x SOURCES:				
536-F1A	Atmospheric Tower Heater	NO_x		
536-F1B	Atmospheric Tower Heater	NO_x		
536-F2	Vacuum Tower Heater	NO_x		
537-HC-1	Crude Heater No. 1	NO_x		
537-HV-1	Vacuum Heater No. 1	NO_x		
633-PFR	633 Reactor Feed Heater	NO_x		
633-HR	633 Fractionator ReBoiler	NO_x		
634-HR	634 Reactor Feed Heater	NO_x		
635-HR	635 Reactor Feed Heater	NO_x		
636FDHTR	636 Reactor Feed Heater	NO_x		
636FRHTR	636 Fractionator Feed Heat	ter	NO_x	
735-HH10	735 Reactor Charge Heater	NO_x		
735-HH5	735 No. 4 Reactor Heater	NO_x		
735-HH6	735 Unifiner Stripper ReBo	oiler	NO_x	
735-HH7	735 Stabilizer Heater	NO_x		
COK-HE	East Coker Heater	NO_x		
COK-HW	West Coker Heater	NO_x		
737-HEAT	Heater F001	NO_x		
737-HEAT	Heater F002	NO_x		
ISOMII-F5	Isom II East Reactor Feed	Heater	NO_x	
BOILER-14	Boiler No. 14	NO_x		
BOILER-15	Boiler No. 15	NO_x		
732-COB	FCCU CO Boiler	NO_x		

 NO_{x}

Tail Gas Thermal Oxidizer

Emission	Source	Air Contaminant	Emission Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr TPY
TGU-ICN2	Tail Gas Thermal Oxidize	r NO_x	
MVC-ICN	Marine Vapor Combustor	NO_x	
FL-3-COK	736 Coker Flare	NO_x	
FL44SRUSO	SRU South Flare	NO_x	
FL38	Merox Flare	NO_x	
P-FL-1	No. 1 Plant Flare	NO_x	
P-FL-2	No. 2 Plant Flare	NO_x	
P-FL-3	No. 3 Plant Flare	NO_x	
P-FL-4	No. 4 Plant Flare	NO_x	
533-H1	533 Atmospheric Tower He	ater	NO_x
533-H2	533 Vacuum Tower Heater	NO_x	
533DHN-H1	533 H1 Heater	NO_x	
533DHN-H2	533 Duotreater Heater	NO_x	
533HF-H101	533 Hydrofinisher Reacto	r Heater	NO_x
533HT-H102	533 Hydrotreater Reactor	-Fired	NO_x
	Heater		
534-F5	Depentanizer Tower Heate		
631A-F1	SR Heater	NO_x	
631B-F2	LCO Feed Heater	NO_x	
632-F1	632 Reactor Feed Heater	NO_x	
632-F2	632 LEF ReBoiler	NO _x	
732-H1A	732 East Heater	NO _x	
732-H1B	732 West Heater	NO _x	
733-B5	Heater B5 - 733 LEF Fire	d NO _x	
722 B7	ReBoiler	• •	
733-B7	733 REF Fractionator ReB		NO_x
735-HH1	735 Unifiner Heater	NO _x	
735-HH2	735 No. 1 Reactor Heater		
735-HH3	735 No. 2 Reactor Heater	` '	NO _x
(same)	735 No. 2 Reactor Heater	• •	NO _x
(same)	735 No. 2 Reactor Heater	• •	NO _x
735-HH4	735 No. 3 Reactor Heater		NO _x
(same)	735 No. 3 Reactor Heater		NO _x
(same)	735 No. 3 Reactor Heater	• •	NO _x
(same)	735 No. 3 Reactor Heater		NO _x
(same)	735 No. 3 Reactor Heater	(E)	NO_x

AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant		
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>
(same) 735-HH8	735 No. 3 Reactor Heator 735 Naphtha Feed Heate		NO_{\times}	
735-HH9 ARU-H501	Naphtha Fractionator Ro Benzene Stabilizer Hea	eBoiler	NO_{x}	
BTU-HF101	Btu-Depent Heater	NO _x		
BTU-HF102	HDS Reactor Heater	NO_x		
BTU-HF103	No. 1 Reactor Feed Hea	* ·	NO	
BTU-HF104	Btu-No. 2 Reactor Feed		NO _x	
BTU-HF105	Btu-No. 3 Reactor Feed		NO _x	
BTU-HF106	Btu-No. 4 Reactor Feed Btu-Reformate Stabilize		NO _x	
BTU-HF107 BTU-HF108	Btu-Reformate Splitter		NO_x NO_x	
BTU-HF111	Btu-Extract Stripper R		NO_{x}	
ISMI-B501A	Isom I Combust. Air He		ΝOχ	
ISMI-B501B	Isom I Lift Air Heater	NO _x		
ISMI-H500A	Isom I North Reactor Fo	* ·	NO_{x}	
ISMI-H500B	Isom I South Reactor Fe		NO _x	
ISOMII-F1	Isom II West Reactor Fo		NO_{x}	
ISOMII-F2	Isom II Combination Sp		NO_x	
	Heater			
ISOMII-F3	Isom II Xylene Rerun To Heater	ower NO _x		
ORTHOI-H1	Orthoxylene I Heater	NO_x		
ORTHOII-H2	Orthoxylene II Heater	NO_x		
UDEX-H1	Heartcut Fractionator I	Heater	NO_x	
BOILER-12	Boiler No. 12	NO_x		
BOILER-13	Boiler No. 13	NO_x		
HOUST-FL	Houston Street Flare	NO_x		
	EMISSIONS CAP: through 6646.8	h 2002	NO _x	1948.2
	EMISSIONS CAP: 2003-20	$004 NO_x$	1870.3	5335.6
	EMISSIONS CAP: 2004-20		1796.5	4933.2
	EMISSIONS CAP: 2005-20	$006 NO_x$	1769.4	4409.5
	EMISSIONS CAP: 2007	NO_x	1569.9	3564.9

CO SOURCES (SAME AS NO_x SOURCES):

EMISSION SOURCES - EMISSIONS CAPS

Emission	Source	Air Contaminant		Rates*
Point No. (1)	Name (2)	Name (3)	<u> 1b/hr</u>	<u>TPY</u>
	EMISSIONS CAP:	CO	1347.4	3229.3
SO ₂ SOURCES (SAME	AS NO _x SOURCES):			
	EMISSIONS CAP:	SO_2	878.8	2717.9
PM SOURCES (SAME	AS NO _x SOURCES PLUS):			
COK-LL 737-CL 737-CP	Coke Loading Fugitives Coke Loading Fugitives Coke Pit	PM PM PM		
	EMISSIONS CAP:	РМ	158.8	629.5
VOC SOURCES:				
TK011A TK012A TK017A TK030A TK414 TK416 TK418 TK422A TK423 TK425 TK442 TK442 TK555 TK556 TK556 TK557 TK558 TK559 TK560 TK561	EFR Tank No. 11A Fixed-Roof Tank No. 12A EFR Tank No. 17A IFR Tank No. 30A EFR Tank No. 414 EFR Tank No. 416 EFR Tank No. 418 Fixed-Roof Tank No. 422 EFR Tank No. 423 EFR Tank No. 425 EFR Tank No. 441 EFR Tank No. 554 EFR Tank No. 554 EFR Tank No. 555 EFR Tank No. 556 EFR Tank No. 557 EFR Tank No. 558 EFR Tank No. 559 EFR Tank No. 560 EFR Tank No. 561	VOC VOC VOC VOC		

Emission Point No. (1)	Source Name (2)		Air Contaminant Name (3)	Emission lb/hr	Rates* TPY
TK562	EFR Tank No. 562		VOC		
TK563	EFR Tank No. 563		V0C		
TK564	EFR Tank No. 564		VOC		
TK565A	EFR Tank No. 565A		VOC		
TK570	EFR Tank No. 570		VOC		
TK571	Fixed-Roof Tank No.	571	VOC		
TK572	Fixed-Roof Tank No.	572	VOC		
TK573	EFR Tank No. 573	- - - 4	VOC		
TK574	Fixed-Roof Tank No.	5/4	VOC		
TK576	EFR Tank No. 576		VOC		
TK577	EFR Tank No. 577		VOC		
TK578	EFR Tank No. 578		VOC		
TK579	EFR Tank No. 579		VOC		
TK583 TK584	EFR Tank No. 583 EFR Tank No. 584		VOC VOC		
TK594	EFR Tank No. 594		VOC		
TK594 TK597A	EFR Tank No. 597A		VOC		
TK597A TK599A	EFR Tank No. 599A		VOC		
TK600	EFR Tank No. 600		VOC		
TK601	Fixed-Roof Tank No.	601	VOC		
TK604	Fixed-Roof Tank No.		VOC		
TK607	Fixed-Roof Tank No.		VOC		
TK613A	IFR Tank No. 613A	00.	VOC		
TK618	EFR Tank No. 618		VOC		
TK619A	EFR Tank No. 619A		VOC		
TK674	EFR Tank No. 674		VOC		
TK687	IFR Tank No. 687		VOC		
TK693	IFR Tank No. 693		VOC		
TK694	IFR Tank No. 694		VOC		
TK774	EFR Tank No. 774		VOC		
TK775	EFR Tank No. 775		VOC		
TK776	EFR Tank No. 776		VOC		
TK777	EFR Tank No. 777		VOC		
TK793	EFR Tank No. 793		VOC		
TK797	EFR Tank No. 797		VOC		
TK801	Fixed-Roof Tank No.	801	VOC		
TK802	EFR Tank No. 802		VOC		
TK803	EFR Tank No. 803		VOC		

Emission	Source	A	Air Contaminant	Emission	
<u>Point No. (1)</u>	Name (2)		Name (3)	lb/hr	<u>TPY</u>
TK804 TK805 TK806	EFR Tank No. 804 EFR Tank No. 805 EFR Tank No. 806		VOC VOC VOC		
TK807	EFR Tank No. 807		VOC		
TK808	EFR Tank No. 808		VOC		
TK809	EFR Tank No. 809		VOC		
TK810	EFR Tank No. 810		VOC		
TK811	EFR Tank No. 811		VOC		
TK813	Fixed-Roof Tank No.	813	VOC		
TK814	Fixed-Roof Tank No.	814	V0C		
TK816	IFR Tank No. 816		V0C		
TK817	EFR Tank No. 817		V0C		
TK834A	IFR Tank No. 834A		V0C		
TK835	EFR Tank No. 835		V0C		
TK838	EFR Tank No. 838		V0C		
TK850	EFR Tank No. 850		V0C		
TK854	IFR Tank No. 854		V0C		
TK855	IFR Tank No. 855		V0C		
TK861	IFR Tank No. 861		V0C		
TK865	IFR Tank No. 865		V0C		
TK867	IFR Tank No. 867		VOC		
TK868	IFR Tank No. 868		VOC		
TK869	IFR Tank No. 869		V0C		
TK870	Fixed-Roof Tank No.		VOC		
TK871	Fixed-Roof Tank No.	871	VOC		
TK872	IFR Tank No. 872		VOC		
TK873	IFR Tank No. 873		VOC		
TK874	IFR Tank No. 874		VOC		
TK875	IFR Tank No. 875		VOC		
TK876	IFR Tank No. 876		VOC		
TK878	IFR Tank No. 878		VOC		
TK879	IFR Tank No. 879		VOC		
TK880	IFR Tank No. 880		VOC		
TK881	IFR Tank No. 881		VOC		
TK882	IFR Tank No. 882		VOC		
TK883	IFR Tank No. 883		VOC		

Emission	Source	Air Contaminant	Emission Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr TPY
TK884	IFR Tank No. 884	VOC	
TK885	EFR Tank No. 885	VOC	
TK886	EFR Tank No. 886	VOC	
TK887	EFR Tank No. 887	VOC	
TK888	EFR Tank No. 888	VOC	
TK890	EFR Tank No. 890	VOC	
TK891	Fixed-Roof Tank No. 891		
TK892	EFR Tank No 892	VOC	
TK893	EFR Tank No 893	VOC	
TK897	Fixed-Roof Tank No. 897	VOC	
TK911	Fixed-Roof Tank No. 911	. VOC	
TK920	IFR Tank No. 920	VOC	
TK921	EFR Tank No. 921	VOC	
TK922	EFR Tank No. 922	VOC	
536-F1A	Atmospheric Tower Heate	r VOC	
536-F1B	Atmospheric Tower Heate	r VOC	
536-F2	Vacuum Tower Heater	VOC	
537-HC-1	Crude Heater No. 1	VOC	
537-HV-1	Vacuum Heater No. 1	VOC	
633-PFR	633 Reactor Feed Heater	· VOC	
633-HR	633 Fractionator ReBoil	er VOC	
634-HR	634 Reactor Feed Heater	VOC	
635-HR	635 Reactor Feed Heater	VOC	
636FDHTR	636 Reactor Feed Heater		
636FRHTR	636 Fractionator Feed H		VOC
735-HH10	735 Reactor Charge Heat		
735-HH5	735 No. 4 Reactor Heate		
735-HH6	735 Unifiner Stripper R		VOC
735-HH7	735 Stabilizer Heater	VOC	
COK-HE	East Coker Heater	VOC	
COK-HW	West Coker Heater	VOC	
737-HEAT	Heater F001	VOC	
737-HEAT	Heater F002	VOC	
ISOMII-F5	Isom II East Reactor Fe Heater		
BOILER-14	Boiler No. 14	VOC	

Emission	Source A	ir Contaminant	Emission Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr TPY
BOILER-15	Boiler No. 15	VOC	
732-COB	FCCU CO Boiler	VOC	
TGU-ICN	Tail Gas Thermal Oxidize	r VOC	
TGU-ICN2	Tail Gas Thermal Oxidize	r VOC	
MVC-ICN	Marine Vapor Combustor	VOC	
FL-3-COK	736 Coker Flare	VOC	
FL44SRUSO	SRU South Flare	VOC	
FL38	Merox Flare	VOC	
P-FL-1	No. 1 Plant Flare	VOC	
P-FL-2	No. 2 Plant Flare	VOC	
P-FL-3	No. 3 Plant Flare	VOC	
P-FL-4	No. 4 Plant Flare	VOC	
LOAD-FUG	Marine Loading Fugitives	V0C	
	(A, B, C)		
TK001A	Fixed-Roof Tank No. 1A	V0C	
T-1	Fixed-Roof Tank No. T-1	V0C	
TK006A	EFR Tank No. 6A	V0C	
TK026A	EFR Tank No. 26A	V0C	
TK027A	Fixed-Roof Tank No. 27A	V0C	
TK069	Fixed-Roof Tank No. 69	V0C	
TK070	Fixed-Roof Tank No. 70	V0C	
TK071	Fixed-Roof Tank No. 71	VOC	
TK073	Fixed-Roof Tank No. 73	VOC	
TK078A	Fixed-Roof Tank No. 78A	V0C	
TK081	Fixed-Roof Tank No. 81	VOC	
TK082	Fixed-Roof Tank No. 82	VOC	
TK083	Fixed-Roof Tank No. 83	V0C	
TK084	Fixed-Roof Tank No. 84	VOC	
TK085	Fixed-Roof Tank No. 85	V0C	
TK086	Fixed-Roof Tank No. 86	VOC	
TK087	Fixed-Roof Tank No. 87	V0C	
TK088	Fixed-Roof Tank No. 88	V0C	
TK091	Fixed-Roof Tank No. 91	V0C	
TK092	Fixed-Roof Tank No. 92	VOC	
TK093	Fixed-Roof Tank No. 93	V0C	
TK095	Fixed-Roof Tank No. 95	VOC	

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission lb/hr	Rates* TPY
101116 1101 (1)	rame (2)	rume (3)	15/111	<u></u>
TK096	Fixed-Roof Tank No. 96	VOC		
TK097	Fixed-Roof Tank No. 97	VOC		
TK098	Fixed-Roof Tank No. 98	VOC		
TK099	Fixed-Roof Tank No. 99	VOC		
TK110	Fixed-Roof Tank No. 110) VOC		
TK111	Fixed-Roof Tank No. 111	L VOC		
TK112	Fixed-Roof Tank No. 112	2 VOC		
TK113	Fixed-Roof Tank No. 113	3 VOC		
TK114	Fixed-Roof Tank No. 114	l VOC		
TK115	Fixed-Roof Tank No. 115	5 VOC		
TK116	Fixed-Roof Tank No. 116	5 VOC		
TK117	Fixed-Roof Tank No. 117	7 VOC		
TK118	Fixed-Roof Tank No. 118	3 VOC		
TK119	Fixed-Roof Tank No. 119) VOC		
TK120	Fixed-Roof Tank No. 120) VOC		
TK121	Fixed-Roof Tank No. 121	L VOC		
TK122	Fixed-Roof Tank No. 122	2 VOC		
TK123	Fixed-Roof Tank No. 123	3 VOC		
TK124	Fixed-Roof Tank No. 124	ł VOC		
TK125	Fixed-Roof Tank No. 125	5 VOC		
TK126	Fixed-Roof Tank No. 126	S VOC		
TK127	Fixed-Roof Tank No. 127	7 VOC		
TK128	Fixed-Roof Tank No. 128	3 VOC		
TK129	Fixed-Roof Tank No. 129			
TK130	Fixed-Roof Tank No. 130			
TK131	Fixed-Roof Tank No. 131			
TK132	Fixed-Roof Tank No. 132			
TK133	Fixed-Roof Tank No. 133			
TK134	Fixed-Roof Tank No. 134	ł VOC		
TK137	Fixed-Roof Tank No. 137			
TK138	Fixed-Roof Tank No. 138			
TK139	Fixed-Roof Tank No. 139			
TK140	Fixed-Roof Tank No. 140			
TK142	Fixed-Roof Tank No. 142			
TK143	Fixed-Roof Tank No. 143			
TK145	Fixed-Roof Tank No. 145	VOC		

Emission	Source		Air Contaminant	Emissior	Rates*
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
TK146	Fixed-Roof Tank No.	146	VOC		
TK147	Fixed-Roof Tank No.	147	VOC		
TK148	Fixed-Roof Tank No.	148	VOC		
TK149	Fixed-Roof Tank No.	149	VOC		
TK151	Fixed-Roof Tank No.	151	VOC		
TK152	Fixed-Roof Tank No.	152	VOC		
TK153	Fixed-Roof Tank No.	153	VOC		
TK154	Fixed-Roof Tank No.	154	V0C		
TK155	Fixed-Roof Tank No.	155	V0C		
TK156	Fixed-Roof Tank No.	156	V0C		
TK157	Fixed-Roof Tank No.	157	V0C		
TK158	Fixed-Roof Tank No.	158	V0C		
TK159	Fixed-Roof Tank No.		VOC		
TK161	Fixed-Roof Tank No.	161	V0C		
TK162	Fixed-Roof Tank No.		VOC		
TK163	Fixed-Roof Tank No.		VOC		
TK164	Fixed-Roof Tank No.		VOC		
TK165	Fixed-Roof Tank No.		VOC		
TK166	Fixed-Roof Tank No.		VOC		
TK167	Fixed-Roof Tank No.		VOC		
TK168	Fixed-Roof Tank No.		VOC		
TK169	Fixed-Roof Tank No.	169	VOC		
TK170	Fixed-Roof Tank No.		VOC		
TK171	Fixed-Roof Tank No.		VOC		
TK172	Fixed-Roof Tank No.	172	VOC		
TK173	Fixed-Roof Tank No.		VOC		
TK174	Fixed-Roof Tank No.	174	VOC		
TK176	Fixed-Roof Tank No.	176	VOC		
TK177	Fixed-Roof Tank No.	177	V0C		
TK180	Fixed-Roof Tank No.	180	V0C		
TK181	Fixed-Roof Tank No.	181	V0C		
TK182	Fixed-Roof Tank No.	182	V0C		
TK183	Fixed-Roof Tank No.	183	VOC		
TK193	Fixed-Roof Tank No.	193	VOC		
TK194	Fixed-Roof Tank No.	194	VOC		
TK195	Fixed-Roof Tank No.	195	VOC		

Emission	Source		Air Contaminant	<u>Emission</u>	Rates*
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
TK198	Fixed-Roof Tank No.	198	VOC		
TK200	Fixed-Roof Tank No.	200	VOC		
TK201	Fixed-Roof Tank No.	201	VOC		
TK202	Fixed-Roof Tank No.	202	VOC		
TK203	Fixed-Roof Tank No.	203	VOC		
TK204	Fixed-Roof Tank No.	204	VOC		
TK207	Fixed-Roof Tank No.	207	VOC		
TK208	Fixed-Roof Tank No.	208	VOC		
TK209	Fixed-Roof Tank No.	209	VOC		
TK221	Fixed-Roof Tank No.	221	VOC		
TK232	Horizontal Tank No.	232	VOC		
TK233	Horizontal Tank No.	233	VOC		
TK234	Horizontal Tank No.	234	VOC		
TK235	Horizontal Tank No.	235	VOC		
TK236	Horizontal Tank No.	236	VOC		
TK237	Horizontal Tank No.	237	VOC		
TK238	Horizontal Tank No.	238	VOC		
TK239	Horizontal Tank No.	239	VOC		
TK240	Horizontal Tank No.	240	VOC		
TK241	Horizontal Tank No.	241	VOC		
TK244	Fixed-Roof Tank No.	244	VOC		
TK247	Fixed-Roof Tank No.	247	VOC		
TK248	Fixed-Roof Tank No.	248	VOC		
TK249	Fixed-Roof Tank No.	249	VOC		
TK253	Fixed-Roof Tank No.	253	VOC		
TK254	Fixed-Roof Tank No.	254	VOC		
TK255	Fixed-Roof Tank No.	255	VOC		
TK256	Fixed-Roof Tank No.	256	VOC		
TK257	Fixed-Roof Tank No.	257	VOC		
TK258	Fixed-Roof Tank No.	258	VOC		
TK259	Fixed-Roof Tank No.	259	VOC		
TK263	Fixed-Roof Tank No.	263	VOC		
TK264	Fixed-Roof Tank No.	264	VOC		
TK265	Fixed-Roof Tank No.	265	VOC		
TK266	Fixed-Roof Tank No.	266	VOC		
TK267	Fixed-Roof Tank No.	267	VOC		

Emission	Source	Air Contaminant	Emission Rates*
Point No. (1)	Name (2)	Name (3)	<u>lb/hr TPY</u>
TK268	Fixed-Roof Tank No. 26	8 VOC	
TK269	Fixed-Roof Tank No. 26		
TK270	Fixed-Roof Tank No. 27		
TK271	Fixed-Roof Tank No. 27		
TK272	Fixed-Roof Tank No. 27		
TK273	Fixed-Roof Tank No. 27		
TK274	Fixed-Roof Tank No. 27		
TK275	Fixed-Roof Tank No. 27		
TK276	Fixed-Roof Tank No. 27		
TK278	Fixed-Roof Tank No. 27		
TK282	Fixed-Roof Tank No. 28		
TK283	Fixed-Roof Tank No. 28		
TK284	Fixed-Roof Tank No. 28		
TK285	Fixed-Roof Tank No. 28		
TK286	Fixed-Roof Tank No. 28	6 VOC	
TK287	Fixed-Roof Tank No. 28	7 VOC	
TK321	Fixed-Roof Tank No. 32	1 VOC	
TK322	Fixed-Roof Tank No. 32	2 VOC	
TK334	Fixed-Roof Tank No. 33	4 VOC	
TK335	Fixed-Roof Tank No. 33	5 VOC	
TK338	Fixed-Roof Tank No. 33	8 VOC	
TK402A	EFR Tank No. 402A	VOC	
TK410	Fixed-Roof Tank No. 41	.0 VOC	
TK412A	IFR Tank No. 412A	VOC	
TK420A	EFR Tank No. 420A	VOC	
TK424A	EFR Tank No. 424A	VOC	
TK445	Fixed-Roof Tank No. 44	5 VOC	
TK446	Fixed-Roof Tank No. 44	6 VOC	
TK476	EFR Tank No. 476	VOC	
TK477	EFR Tank No. 477	VOC	
TK509	Fixed-Roof Tank No. 50	9 VOC	
TK541	Fixed-Roof Tank No. 54	1 VOC	
TK543	Fixed-Roof Tank No. 54	3 VOC	
TK553	Fixed-Roof Tank No. 55		
TK580	EFR Tank No. 580	VOC	
TK581	EFR Tank No. 581	VOC	

Emission	Source	Ai	r Contaminant	Emission	
Point No. (1)	Name (2)		Name (3)	<u>lb/hr</u>	<u>TPY</u>
TK582	EFR Tank No. 582		VOC		
TK590	EFR Tank No. 590		VOC		
TK591	EFR Tank No. 591		VOC		
TK592	Horizontal Tank No.	592	VOC		
TK593	Horizontal Tank No.		VOC		
TK598	EFR Tank No. 598	333	VOC		
TK609A	Fixed-Roof Tank No.	609A	VOC		
TK633	Fixed-Roof Tank No.		VOC		
TK634	Fixed-Roof Tank No.		VOC		
TK646	Fixed-Roof Tank No.		VOC		
TK647	Fixed-Roof Tank No.		VOC		
TK649	Fixed-Roof Tank No.		VOC		
TK650	Fixed-Roof Tank No.	650	VOC		
TK651	Fixed-Roof Tank No.	651	VOC		
TK652	Fixed-Roof Tank No.	652	V0C		
TK653	Fixed-Roof Tank No.	653	V0C		
TK654	Fixed-Roof Tank No.	654	V0C		
TK655	Fixed-Roof Tank No.	655	VOC		
TK656	Fixed-Roof Tank No.	656	VOC		
TK657	Fixed-Roof Tank No.	657	VOC		
TK658	Fixed-Roof Tank No.	658	VOC		
TK659	Fixed-Roof Tank No.	659	VOC		
TK660	Fixed-Roof Tank No.	660	V0C		
TK661	Fixed-Roof Tank No.	661	VOC		
TK662	Fixed-Roof Tank No.	662	V0C		
TK663	Fixed-Roof Tank No.	663	V0C		
TK664	Fixed-Roof Tank No.	664	V0C		
TK665	Fixed-Roof Tank No.	665	V0C		
TK666	Fixed-Roof Tank No.	666	V0C		
TK667	IFR Tank No. 667		V0C		
TK668	IFR Tank No. 668		V0C		
TK669	IFR Tank No. 669		V0C		
TK670	IFR Tank No. 670		V0C		
TK671	Fixed-Roof Tank No.	671	VOC		
TK672	IFR Tank No. 672		VOC		
TK673	IFR Tank No. 673		VOC		

Emission	Source	Air Contaminar		
Point No. (1)	Name (2)	Name (3)	<u> 1b/hr</u>	<u>TPY</u>
TK675	Fixed-Roof Tank No. (575 VOC		
TK677	IFR Tank No. 677	VOC		
TK685	IFR Tank No. 685	VOC		
TK686	IFR Tank No. 686	VOC		
TK688	IFR Tank No. 688	VOC		
TK689	IFR Tank No. 689	VOC		
TK690	IFR Tank No. 690	VOC		
TK691	IFR Tank No. 691	VOC		
TK692	IFR Tank No. 692	VOC		
TK695	Horizontal Tank No. (595 VOC		
TK696	Horizontal Tank No. (596 VOC		
TK697	Fixed-Roof Tank No. (597 VOC		
TK698	Fixed-Roof Tank No. (598 VOC		
TK699	Fixed-Roof Tank No. (599 VOC		
TK700	Fixed-Roof Tank No. 7	700 VOC		
TK709	Fixed-Roof Tank No. 7	709 VOC		
TK710	Fixed-Roof Tank No. 7	710 VOC		
TK711	Fixed-Roof Tank No. 3	711 VOC		
TK712	Fixed-Roof Tank No. :	712 VOC		
TK723	Fixed-Roof Tank No. 3	723 VOC		
TK724	Fixed-Roof Tank No. :	724 VOC		
TK726	Fixed-Roof Tank No. :	726 VOC		
TK727	Fixed-Roof Tank No.	727 VOC		
TK729	Fixed-Roof Tank No. 1	729 VOC		
TK730	Fixed-Roof Tank No.	730 VOC		
TK732	Fixed-Roof Tank No.			
TK744	Fixed-Roof Tank No.			
TK747	Fixed-Roof Tank No.	747 VOC		
TK750	Fixed-Roof Tank No.	750 VOC		
TK751	Fixed-Roof Tank No.			
TK752	Fixed-Roof Tank No.			
TK753	Fixed-Roof Tank No.			
TK754	Fixed-Roof Tank No.			
TK755	Fixed-Roof Tank No.			
TK756	Fixed-Roof Tank No.			
TK757	Fixed-Roof Tank No.	757 VOC		

Emission	Source	Ai	r Contaminant	Emission	
Point No. (1)	Name (2)		Name (3)	lb/hr	<u>TPY</u>
TK759	Fixed-Roof Tank No. 7	750	VOC		
TK760	Fixed-Roof Tank No. 7		VOC		
TK761		'61	VOC		
TK762	Fixed-Roof Tank No. 7		VOC		
TK763	Fixed-Roof Tank No. 7		VOC		
TK764	Fixed-Roof Tank No. 7		VOC		
TK765	Fixed-Roof Tank No. 7		VOC		
TK767	Fixed-Roof Tank No. 7		VOC		
TK768	Fixed-Roof Tank No. 7		VOC		
TK769	Fixed-Roof Tank No. 7		VOC		
TK771	Fixed-Roof Tank No. 7		VOC		
TK772	Fixed-Roof Tank No. 7		VOC		
TK778	Fixed-Roof Tank No. 7		VOC		
TK779	Fixed-Roof Tank No. 7	779	VOC		
TK780	Fixed-Roof Tank No. 7	780	VOC		
TK781	Fixed-Roof Tank No. 7	781	V0C		
TK782	Fixed-Roof Tank No. 7	782	V0C		
TK783	Fixed-Roof Tank No. 7	783	V0C		
TK784	Fixed-Roof Tank No. 7	⁷ 84	V0C		
TK785	Fixed-Roof Tank No. 7	785	VOC		
TK786	Fixed-Roof Tank No. 7	786	VOC		
TK787	Fixed-Roof Tank No. 7	787	VOC		
TK788	Fixed-Roof Tank No. 7	788	V0C		
TK789	Fixed-Roof Tank No. 7	789	VOC		
TK790	EFR Tank No. 790		V0C		
TK791	EFR Tank No. 791		V0C		
TK792	Fixed-Roof Tank No. 7	792	V0C		
TK793	EFR Tank No. 793		V0C		
TK794	EFR Tank No. 794		V0C		
TK795	EFR Tank No. 795		V0C		
TK796	EFR Tank No. 796		V0C		
TK798	EFR Tank No. 798		V0C		
TK799	EFR Tank No. 799		V0C		
TK800	EFR Tank No. 800		VOC		
TK812	Fixed-Roof Tank No. 8	312	VOC		
TK815	IFR Tank No. 815		V0C		

Emission	Source	Air	Contaminant	Emission	Rates*
Point No. (1)	Name (2)		Name (3)	lb/hr	TPY
			•		
TK818	EFR Tank No. 818		VOC		
TK819	EFR Tank No. 819		VOC		
TK821	IFR Tank No. 821		VOC		
TK822	IFR Tank No. 822		VOC		
TK825	Fixed-Roof Tank No.	825	VOC		
TK826	Fixed-Roof Tank No.	826	VOC		
TK827	Fixed-Roof Tank No.	827	VOC		
TK836	Fixed-Roof Tank No.	836	VOC		
TK839	Fixed-Roof Tank No.	839	VOC		
TK841	Fixed-Roof Tank No.	841	VOC		
TK842	Fixed-Roof Tank No.	842	VOC		
TK843	Fixed-Roof Tank No.	843	VOC		
TK851	Fixed-Roof Tank No.	851	VOC		
TK852	Fixed-Roof Tank No.	852	VOC		
TK853	Fixed-Roof Tank No.	853	VOC		
TK856	Fixed-Roof Tank No.	856	VOC		
TK857	Fixed-Roof Tank No.	857	VOC		
TK858	Fixed-Roof Tank No.	858	VOC		
TK859	Fixed-Roof Tank No.	859	VOC		
TK860	Fixed-Roof Tank No.	860	VOC		
TK862	Fixed-Roof Tank No.	862	VOC		
TK863	Fixed-Roof Tank No.		VOC		
TK866A	Fixed-Roof Tank No.	866A	VOC		
TK894	Fixed-Roof Tank No.		VOC		
TK895	Fixed-Roof Tank No.		VOC		
TK896	Fixed-Roof Tank No.		VOC		
TK898	Fixed-Roof Tank No.		VOC		
TK901	Horizontal Tank No.		VOC		
TK902	Horizontal Tank No.	902	VOC		
TK906	Fixed-Roof Tank No.		VOC		
TK907	Fixed-Roof Tank No.		VOC		
TK908	Fixed-Roof Tank No.		VOC		
TK909			VOC		
TK916	Fixed-Roof Tank No.		VOC		
TK7601	Fixed-Roof Tank No.		VOC		
TK7701	Fixed-Roof Tank No.	7701	VOC		

Emission	Source	Air Contaminant	Emission	Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
FUGITIVE 533-H1 533-H2	Tank-Truck/Rail-Car Loa 533 Atmospheric Tower H 533 Vacuum Tower Heater	Heater	VOC VOC	
533DHN-H1	533 H1 Heater	VOC		
533DHN-H2	533 Duotreater Heater	VOC		
533HF-H101	533 Hydrofinisher React Heater			
533HT-H102	533 Hydrotreater Reacto Heater	or-Fired	VOC	
534-F5	Depentanizer Tower Heat	ter VOC		
631A-F1	SR Heater	VOC		
631B-F2	LCO Feed Heater	VOC		
632-F1	632 Reactor Feed Heater			
632-F2	632 LEF ReBoiler	VOC		
732-H1A	732 East Heater	VOC		
732-H1B	732 West Heater	VOC		
733-B5	Heater B5 - 733 LEF Fir ReBoiler	red VOC		
733-B7 735-HH1 735-HH2	733 REF Fractionator Re 735 Unifiner Heater 735 No. 1 Reactor Heate	VOC	VOC	
735-HH3	735 No. 2 Reactor Heate	er(A)	VOC	
(same)	735 No. 2 Reactor Heate		VOC	
(same)	735 No. 2 Reactor Heate	er(C)	VOC	
735-HH4	735 No. 3 Reactor Heate	er(A)	VOC	
(same)	735 No. 3 Reactor Heate	er(B)	VOC	
(same)	735 No. 3 Reactor Heate	er(C)	VOC	
(same)	735 No. 3 Reactor Heate	er(D)	VOC	
(same)	735 No. 3 Reactor Heate	er(E)	VOC	
(same)	735 No. 3 Reactor Heate	er(F)	VOC	
735-HH8 735-HH9 ARU-H501 BTU-HF101 BTU-HF102 BTU-HF103	735 Naphtha Feed Heater Naphtha Fractionator Re Benzene Stabilizer Heat Btu-Depent Heater HDS Reactor Heater No. 1 Reactor Feed Heat	eBoiler ter VOC VOC VOC	VOC	
2.0 203	I hearton reca mean			

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates* lb/hr TPY
BTU-HF104	Btu-No. 2 Reactor Feed		VOC
BTU-HF105	Btu-No. 3 Reactor Feed		VOC
BTU-HF106	Btu-No. 4 Reactor Feed		VOC
BTU-HF107	Btu-Reformate Stabilize ReBoiler	er VOC	
BTU-HF108	Btu-Reformate Splitter		VOC
BTU-HF111	Btu-Extract Stripper Re		VOC
ISMI-B501A	Isom I Combust. Air Hea		
ISMI-B501B	Isom I Lift Air Heater	VOC	
ISMI-H500A	Isom I North Reactor Fe		VOC
ISMI-H500B	Isom I South Reactor Fe		VOC
ISOMII-F1	Isom II West Reactor Fe		VOC
ISOMII-F2	Isom II Combination Spi Heater	litter	VOC
ISOMII-F3	Isom II Xylene Rerun To Heater	ower VOC	
ORTHOI-H1	Orthoxylene I Heater	VOC	
ORTHOII-H2	Orthoxylene II Heater	VOC	
UDEX-H1	Heartcut Fractionator H		VOC
BOILER-12	Boiler No. 12	VOC	
BOILER-13	Boiler No. 13	VOC	
HOUST-FL	Houston Street Flare	VOC	
FUGITIVES	Fugitives	VOC	
533-CT	533 C.T. Return	VOC	
534-CT	534 C.T. Return	VOC	
537-N	535 New C.T. Return	VOC	
537-0	535 Old C.T. Return	VOC	
536-CT	536 C.T. Return	VOC	
732-CT	732 C.T. Return	VOC	
537-X	733 C.T. Return (2 nort	th cells)	VOC
733-CT	733 C.T. Return	VOC	
735-CT	735 C.T. Return	VOC	
ARU-CT	ARU C.T. Return	VOC	
BRU-CT	BRU C.T. Return	VOC	
FCT-COKE	Coker C.T. Return (736)		
737-CT	Coker C.T. Return (737)		
SRU-CT	SRU C.T. Return (439 TO		
LCT-SULF	SRU C.T. Return (439 C)	laus)	VOC

Emission	Source A	Air Contamina	nt <u>Emission</u>	Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
FU-SEWER FU-API FU-EQSUMP FU-GCLS	Wastewater collection sy API Separator (EPN FU-A EQ Sump (EPN FU-EQSUMP) GCWDA Lift Station		VOC VOC	
	(EPN FU-GCLS) EMISSIONS CAP: through 3871	2000	VOC	5766
	EMISSIONS CAP: 2001	VOC	3173	3350
BENZENE SOURCES:	(SAME AS VOC SOURCES)			
	EMISSIONS CAP: through 72.7	2000 E	BENZENE	
	EMISSIONS CAP: 2001	BENZENE		59
INDIVIDUAL EMISSION LIMITATIONS:				
633-FUG 633-FUG TGU-ICN TGU-ICN2 LL19DOCKD LL11TT TK921 TK921 TK922 TK922 TK870 TK871	633 DHT Fugitives 633 DHT Fugitives Tail Gas Thermal Oxidize Tail Gas Thermal Oxidize Barge Loading Tank Truck Loading Sour Water Tank Sour Water Tank Sour Water Tank Sour Water Tank Molten Sulfur Storage Tank Molten Sulfur Storage Tank Anhydrous Ammonia Storage Tank	=	0.01 <0.01 0.06 0.06 7.79 3.19 0.04 0.08 <0.04 0.08 <0.001 <0.001	0.03 <0.01 (6) (6) 3.26 2.50 0.11 0.21 0.11 0.21 <0.001 <0.001
VES202	Sulfuric Acid Storage Tank	H_2SO_4	<0.001	<0.001

Emission	Source	Air Contaminant	<u>Emission</u>	<u>Rates*</u>
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>
VES203	Sulfuric Acid Storage Tank	H_2SO_4	<0.001	<0.001
SRU-FE	Sulfur Plant Fugitives	SO_2	0.01	0.04
SRU-FE	Sulfur Plant Fugitives	H_2S	0.51	2.22
SRU-FE	Sulfur Plant Fugitives	CO	<0.01	<0.01
SRU-FE	Sulfur Plant Fugitives	COS	<0.01	<0.01
SRU-FE	Sulfur Plant Fugitives	CS ₂	<0.01	<0.01
SRU-FE	Sulfur Plant Fugitives	NH_3	0.02	0.11
SWS-FE	Sour Water	H_2S	<0.01	<0.01
	System Fugitives			
SWS-FE	Sour Water	NH_3	<0.01	<0.01
	System Fugitives			
1415-FE	Amine Treating Units No. 14 and 15 Fugitive	H₂S es	0.23	0.99
AMINE-FE	New Amine Treating	H₂S	0.11	0.49
50TN-FE	Unit Fugitives 50-Ton Amine Treating Unit Fugitives	H₂S	0.15	0.66
100TN-FE	100-Ton Amine Treating Unit Fugitives	H_2S	<0.01	<0.01
732-COB	FCCU CO Boiler Wet Gas Scrubber	SO₃	33.70	52.80
732-COB	FCCU CO Boiler Wet Gas Scrubber	Antimony	0.02	0.09
737-FUG	Fugitives	H₂S	0.02	0.08
FU66HDS	636 Fugitives	H_2S	0.01	0.05
FU66HDS	636 Fugitives	$\overline{NH_3}$	0.01	0.01
537-FUG	Fugitives	H_2S	<0.01	0.01
599A	Tank 599A (5) (7)	H ₂ S	0.00	0.00
885	Tank 885 (5)	H₂S	0.37	1.58
886	Tank 886 (5)	H₂S	0.37	1.58
887	Tank 887 (5)	H ₂ S	0.37	1.58
888	Tank 888 (5)	H ₂ S	0.37	1.58
FE	Fugitives (5)	H₂S	0.02	0.09
P-FL-1	Main Plant Flare No. 1	SO ₃	0.04	0.02
P-FL-1	Fugitives (4)	H ₂ S	<0.01	<0.001

Emission	Source	Air Contaminant	Emission	Rates*
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		•		
FL38	Merox Flare	H_2S	<0.01	<0.01

- (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) NO_x nitrogen oxide
- VOC volatile organic compounds as defined in 30 Texas Administrative Section 101.1
 - H₂S hydrogen sulfide
 - NH₃ ammonia
 - SO₂ sulfur dioxide
 - H₂SO₄ sulfuric acid
 - CO carbon monoxide
 - COS carbon sulfide
 - CS₂ carbon disulfide
 - PM particulate matter, suspended in the atmosphere, including PM_{10}
 - PM_{10} 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.
 - SO₃ sulfur trioxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) H_2S emissions from crude oil are an estimate only and should not be considered as a maximum allowable emission rate. However, at no time shall the emissions cause a nuisance condition.
- (6) Total for both sources is 0.28 TPY.
- (7) Storage Tank 599A H_2S emissions used in intraplant trade with flares, April 1999.
 - * Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/dayDays/weekWeeks/yearor Hrs/year <u>8,76</u>	Weeks/yearor Hrs/year <u>8,760</u>
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AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	<u>Emission Rates*</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr TPY	_

Dated____