Emission Sources - Maximum Allowable Emission Rates

Permit Number 4788

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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
RA22	Flare	VOC	23.05	5.70
		Ethylene Oxide	0.03	0.03
		Propylene Oxide	0.03	0.03
		NO_x	93.71	39.28
		CO	44.49	33.96
		NH_3	5.48	23.39
		NH_3 (6)	20.00	-
RE22	Loading Incinerator	VOC	2.05	0.28
		NO_x	31.31	6.74
		CO	0.84	2.21
		SO_2	0.01	0.02
		PM	0.08	0.20
		PM_{10}	0.08	0.20
		$PM_{2.5}$	0.08	0.20
RF60	Flare	VOC	2.93	10.31
		Ethylene Oxide	1.32	5.39
		Propylene Oxide	1.47	5.49
		NOx	2.11	3.72
		CO	18.09	31.62
		HBr	6.15	1.07
RA85	Thermal Oxidizer	VOC	0.33	0.18
		NOx	0.30	1.31
		CO	0.19	0.81
		PM	0.04	0.16
		PM_{10}	0.04	0.16

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		$PM_{2.5}$	0.04	0.16
		SO_2	0.01	0.03
HA1	Hot Oil Process Heater	VOC	0.05	0.18
		NO_x	0.76	3.30
		CO	0.64	2.80
		SO_2	0.01	0.02
		PM	0.06	0.25
		PM_{10}	0.06	0.25
		$PM_{2.5}$	0.06	0.25
LOAD	Loading	VOC	9.71	1.17
PAINT1	Painting	VOC	24.54	4.91
		PM	36.76	3.45
UC678	Cooling Tower	VOC	9.61	2.81
		PM	2.88	8.42
		PM_{10}	2.24	6.53
		$PM_{2.5}$	0.01	0.02
UF349	Cooling Tower	VOC	14.41	2.81
		PM	4.08	7.84
		PM_{10}	3.17	6.09
		$PM_{2.5}$	0.01	0.02
FE29	Scrubber	VOC	0.01	0.01
FE30	WE3 Unloading	VOC	0.07	0.03
	Tank Car Scrubber	NH_3	0.10	<0.01
FE41	Scrubber	VOC	0.63	0.07
FE42	Scrubber	VOC	2.59	0.64
FE45	Scrubber	VOC	0.64	0.09
FE57	Scrubber	VOC	0.31	0.04
TG52	Scrubber	VOC	0.27	0.02
		NH_3	0.05	0.01

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FC4	Process Vent	VOC	0.03	0.01
		PM	0.01	0.02
LG5	Process Vent	VOC	1.06	1.91
		NH_3	0.78	2.50
LB8	Process Vent	VOC	0.01	0.01
FE53	Atmospheric Tank	VOC	2.78	0.13
FE55	Atmospheric Tank	VOC	0.61	0.02
TB1	Atmospheric Tank	VOC	0.26	0.02
TB14	Atmospheric Tank	VOC	3.18	0.38
TB15	Atmospheric Tank	VOC	3.18	0.38
TB16	Atmospheric Tank	VOC	0.01	0.01
TB17	Atmospheric Tank	VOC	0.01	0.01
TB18	Atmospheric Tank	VOC	0.01	0.01
TB19	Atmospheric Tank	VOC	0.04	0.01
TB20	Atmospheric Tank	VOC	0.04	0.01
TB21	Atmospheric Tank	VOC	0.01	0.01
TB22	Atmospheric Tank	VOC	0.01	0.01
TB24	Atmospheric Tank	VOC	0.13	0.01
TB7	Atmospheric Tank	VOC	0.36	0.02
TC5	Atmospheric Tank	VOC	0.02	0.01
TE106	Atmospheric Tank	VOC	3.05	0.38
TE11	EC Tank	VOC	0.94	--
TE12	EC Tank	VOC	0.94	--
EC Tanks	EC Tank Group	VOC	--	3.76
TE110	Atmospheric Tank	VOC	0.26	0.14
TE111	Atmospheric Tank	VOC	0.26	0.13
TE112	Atmospheric Tank	VOC	3.61	0.16
TE114	Atmospheric Tank	VOC	0.26	0.08
TE118	Atmospheric Tank	VOC	0.26	0.04

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TE119	Atmospheric Tank	VOC	5.20	0.38
TE121	Atmospheric Tank	VOC	5.2	0.38
TE122	Atmospheric Tank	VOC	5.2	0.38
TE123	Atmospheric Tank	VOC	5.2	0.38
TE125	Atmospheric Tank	VOC	3.05	0.36
TE135	Atmospheric Tank	VOC	10.24	1.05
TE15	Atmospheric Tank	VOC	0.66	0.27
TE16	Atmospheric Tank	VOC	0.01	0.01
TE17	Atmospheric Tank	VOC	0.3	0.04
TE21	Atmospheric Tank	VOC	0.29	0.03
TE25	Atmospheric Tank	VOC	0.04	0.01
TE26	Atmospheric Tank	VOC	0.04	0.01
TE29	Atmospheric Tank	VOC	0.09	0.01
TE30	Atmospheric Tank	VOC	0.02	0.01
TE46	Atmospheric Tank	VOC	0.01	0.01
TE50	Atmospheric Tank	VOC	0.29	0.03
TE51	Atmospheric Tank	VOC	3.05	0.38
TE52	Atmospheric Tank	VOC	3.05	0.38
TE53	Atmospheric Tank	VOC	0.26	0.07
TE54	Atmospheric Tank	VOC	3.05	0.38
TE55	Atmospheric Tank	VOC	0.26	0.04
TE60	Atmospheric Tank	VOC	0.27	0.05
TE62	Atmospheric Tank	VOC	0.26	0.07
TE70	Atmospheric Tank	VOC	0.26	0.03
TE71	Atmospheric Tank	VOC	0.26	0.03
TE72	Atmospheric Tank	VOC	0.3	0.04
TE73	Atmospheric Tank	VOC	0.26	0.02
TE76	Atmospheric Tank	VOC	3.05	0.48
TE79	Atmospheric Tank	VOC	0.26	0.02

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TG24	Atmospheric Tank	VOC	0.29	0.03
TG25	Atmospheric Tank	VOC	0.29	0.03
TG28	Atmospheric Tank	VOC	0.26	0.02
TG45	Atmospheric Tank	VOC	0.26	0.04
TG47	Atmospheric Tank	VOC	0.26	0.06
TG48	Atmospheric Tank	VOC	0.26	0.08
TG49	Atmospheric Tank	VOC	0.26	0.08
TG50	Atmospheric Tank	VOC	0.26	0.03
TG51	Atmospheric Tank	VOC	0.26	0.03
TG53	Atmospheric Tank	VOC	0.26	0.09
TG56	Atmospheric Tank	VOC	0.26	0.10
TG59	Atmospheric Tank	VOC	0.26	0.10
TF5	IFR Tank	VOC	0.26	0.09
		NH_3	0.01	0.01
FC56	Product Tank	VOC	0.17	--
FD5	Run Down Tank	VOC	1.05	--
FD6	Run Down Tank	VOC	1.05	--
FD7	Run Down Tank	VOC	1.51	--
FD8	Run Down Tank	VOC	1.51	--
FE9	Product Tank	VOC	0.17	--
FE21	Product Tank	VOC	0.17	--
TC42	Product Tank	VOC	0.11	--
TD2	Run Down Tank	VOC	1.28	--
TD3	Run Down Tank	VOC	1.28	--
TD6	Run Down Tank	VOC	1.28	--
TD8	Run Down Tank	VOC	1.58	--
TD9	Run Down Tank	VOC	1.58	--
TD12	Run Down Tank	VOC	1.58	--
TD13	Run Down Tank	VOC	1.58	--

Emission Sources - Maximum Allowable Emission Rates

TD14	Run Down Tank	VOC	1.58	--
TD15	Run Down Tank	VOC	1.58	--
TD22	Run Down Tank	VOC	0.93	--
TE2	Product Tank	VOC	0.17	--
TE5	Product Tank	VOC	0.17	--
TE6	Product Tank	VOC	0.17	--
TE7	Product Tank	VOC	0.17	--
TE8	Product Tank	VOC	0.11	--
TE9	Product Tank	VOC	0.11	--
TE10	Product Tank	VOC	0.11	--
TE13	Product Tank	VOC	0.17	--
TE14	Product Tank	VOC	0.17	--
TE18	Product Tank	VOC	0.17	--
TE19	Product Tank	VOC	0.17	--
TE20	Product Tank	VOC	0.17	--
TE22	Product Tank	VOC	0.17	--
TE28	Product Tank	VOC	0.17	--
TE31	Product Tank	VOC	0.17	--
TE32	Product Tank	VOC	0.17	--
TE36	Product Tank	VOC	0.17	--
TE37	Product Tank	VOC	0.17	--
TE39	Product Tank	VOC	0.11	--
TE44	Product Tank	VOC	0.11	--
TE47	Product Tank	VOC	0.17	--
TE48	Product Tank	VOC	0.17	--
TE49	Product Tank	VOC	0.71	--
TE56	Product Tank	VOC	0.17	--
TE57	Product Tank	VOC	0.17	--
TE58	Product Tank	VOC	0.17	--

Emission Sources - Maximum Allowable Emission Rates

TE61	Product Tank	VOC	0.11	--
TE64	Product Tank	VOC	0.61	--
TE65	Product Tank	VOC	0.61	--
TE67	Product Tank	VOC	0.17	--
TE77	Product Tank	VOC	0.11	--
TE78	Product Tank	VOC	0.11	--
TE80	Product Tank	VOC	0.11	--
TE83	Product Tank	VOC	0.11	--
TE84	Product Tank	VOC	0.11	--
TE105	Product Tank	VOC	0.11	--
TE117	Product Tank	VOC	0.17	--
TE131	Product Tank	VOC	0.17	--
TE132	Product Tank	VOC	0.17	--
TE133	Product Tank	VOC	0.17	--
TE134	Product Tank	VOC	0.11	--
TG1	Run Down Tank	VOC	1.42	--
TG2	Run Down Tank	VOC	1.42	--
TG29	Run Down Tank	VOC	1.42	--
TG30	Run Down Tank	VOC	1.42	--
TG32	Run Down Tank	VOC	1.02	--
TG33	Run Down Tank	VOC	1.02	--
TG57	Product Tank	VOC	0.17	--
TG58	Product Tank	VOC	0.17	--
TG60	Run Down Tank	VOC	0.17	--
Product Tanks	All Product/Rundown	VOC	--	3.55
FC55	D-Kettle RM Tank	VOC	1.46	--
TE3	D-Kettle RM Tank	VOC	1.42	--
TE4	D-Kettle RM Tank	VOC	1.46	--
TD7	G-Kettle RM Tank	VOC	4.67	--

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TE23	G-Kettle RM Tank	VOC	4.81	--
TE33	G-Kettle RM Tank	VOC	6.28	--
TE34	G-Kettle RM Tank	VOC	8.59	--
TE35	G-Kettle RM Tank	VOC	0.28	--
TE38	G-Kettle RM Tank	VOC	6.46	--
TE45	G-Kettle RM Tank	VOC	6.45	--
TE59	G-Kettle RM Tank	VOC	8.95	--
TE63	G-Kettle RM Tank	VOC	11.74	--
TE81	G-Kettle RM Tank	VOC	7.47	--
TE82	G-Kettle RM Tank	VOC	8.51	--
TE85	G-Kettle RM Tank	VOC	1.65	--
TG3	G-Kettle RM Tank	VOC	6.59	--
TG31	G-Kettle RM Tank	VOC	10.01	--
TG36	G-Kettle RM Tank	VOC	9.66	--
TG37	G-Kettle RM Tank	VOC	11.22	--
TG44	G-Kettle RM Tank	VOC	8.38	--
Raw Material Tanks	All RM Tanks	VOC	--	0.17
FD3	Blend Tank	VOC	0.02	0.01
FD4	Blend Tank	VOC	0.02	0.01
TD21	Slurry Tank	VOC	0.03	0.01
TE113	AGM-500 Tank	VOC	1.01	0.39
TG43	IPA Tank	VOC	5.72	0.07
FG55	G-Kettle Reactor	VOC	0.01	0.01
FG2	G-Kettle Neutralizer	VOC	1.11	--
FG52	G-Kettle Neutralizer	VOC	1.11	--
FD9	D-Kettle Neutralizer	VOC	1.11	--
FD10	D-Kettle Neutralizer	VOC	1.11	--
FD21	D-Kettle Neutralizer	VOC	1.11	--
FD24	D-Kettle Neutralizer	VOC	1.11	--

Emission Sources - Maximum Allowable Emission Rates

NEUTRALIZERS	All Neutralizers	VOC	--	4.04
AAUFUG	Fugitive Area (5)	VOC	1.31	5.72
		Ethylene Oxide	0.04	0.16
		NH_3	0.04	0.14
BCAREAF	Fugitive Area (5)	VOC	1.91	8.38
		Ethylene Oxide	0.01	0.01
		Propylene Oxide	0.01	0.01
CARBFUG	Fugitive Area (5)	VOC	0.54	2.36
		Ethylene Oxide	0.02	0.08
		Propylene Oxide	0.01	0.06
CARB2FUG	Fugitive Area (5)	VOC	0.13	0.58
DKETTFUG	Fugitive Area (5)	VOC	1.04	4.53
		Ethylene Oxide	0.48	2.12
		Propylene Oxide	0.02	0.09
DRUMFUG	Fugitive Area (5)	VOC	0.09	0.40
RA22FUG	Fugitive Area (5)	VOC	0.74	3.24
		Ethylene Oxide	0.01	0.01
		NH_3	0.18	0.78
RF60FUG	Fugitive Area (5)	VOC	0.04	0.18
		Ethylene Oxide	0.01	0.01
		Propylene Oxide	0.01	0.01
GKETTFUG	Fugitive Area (5)	VOC	0.60	2.64
		Ethylene Oxide	0.02	0.08
		Propylene Oxide	0.01	0.03
INCINFUG	Fugitive Area (5)	VOC	0.19	0.84
		Ethylene Oxide	0.01	0.01
		NH_3	0.02	0.07
JAU1F	Fugitive Area (5)	VOC	0.05	0.21
		Ethylene Oxide	0.02	0.02

Emission Sources - Maximum Allowable Emission Rates

		NH_3	0.08	0.36
JAUIIF	Fugitive Area (5)	VOC	0.38	1.67
		Ethylene Oxide	0.01	0.01
		NH_3	0.13	0.58
JAUIIIF	Fugitive Area (5)	VOC	0.12	0.51
		Ethylene Oxide	0.01	0.01
		NH_3	0.07	0.31
RAILFUG	Fugitive Area (5)	VOC	0.07	0.29
		NH_3	0.01	0.01
SAUFUG	Fugitive Area (5)	VOC	1.23	5.39
		Ethylene Oxide	0.01	0.01
		NH_3	0.01	0.04
TFARMFUG	Fugitive Area (5)	VOC	1.75	7.68
		Ethylene Oxide	0.11	0.49
		Propylene Oxide	0.12	0.52
		NH_3	0.06	0.26
TC17FUG	Fugitive Area (5)	VOC	0.10	0.45
		Ethylene Oxide	0.01	0.05
		NH_3	0.01	0.01
TRUCKFUG	Fugitive Area (5)	VOC	0.10	0.44
		Propylene Oxide	0.01	0.05
UNLOADFG	Fugitive Area (5)	VOC	0.26	1.13
		Ethylene Oxide	0.05	0.23
		NH_3	0.05	0.24
FUGWW	Wastewater Fugitive (5)	VOC	0.39	1.71
		Ethylene Oxide	0.17	0.73
FUG-MSS	MSS Fugitive	VOC	67.86	4.91
		NH_3	4.61	0.63
		PM	0.04	0.03

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.02	0.02
		$PM_{2.5}$	0.02	0.02

(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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1. VOC emission rates include emissions of ethylene oxide and propylene oxide.
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HBr - hydrogen bromide
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) This emission rate applies only while MSS emissions are routed to the flare.

Date: January 29, 2019