Emission Sources - Maximum Allowable Emission Rates

Permit Number 95145

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)
FT-6201	Alkoxylate Filter Feed Storage Tank	VOC	0.52	0.01
T-1125	Waste Water (Bio-San) Storage Tank	VOC	0.57	0.23
T-1126	Waste Water (Bio-San) Storage Tank	VOC	0.57	0.23
T-1130	Spent Acid from Oxide Scrubber Storage Tank	VOC	0.07	0.32
T-1139	Glacial Acetic Acid Storage Tank	VOC	0.26	0.01
T-6101	C-1214 Alcohol Storage Tank	VOC	0.01	< 0.01
T-6102	C-911 Alcohol Storage Tank	VOC	0.17	< 0.01
T-6103	C-13 Alcohol Storage Tank	VOC	2.21	0.06
T-6104	C-1215 Alcohol Storage Tank	VOC	2.25	0.05
T-6108	Flex Raw Storage Tank	VOC	0.08	< 0.01
T-6109	Flex Raw Storage Tank	VOC	0.04	< 0.01
T-6114	C-911 Alcohol Ethoxylate Storage Tank	VOC	0.09	< 0.01
T-6115	C-10 Alcohol Storage Tank	VOC	1.75	0.01
T-6116	C-13 Alcohol Ethoxylate Storage Tank	VOC	0.09	< 0.01
T-6117	Tallow Amine Ethoxylate Storage Tank	VOC	0.01	< 0.01
T-6118	Agent 601-31 Storage Tank	VOC	0.09	< 0.01
T-6119	Tallow Amine Ethoxylate Storage Tank	VOC	0.01	< 0.01
T-6120	C-1215 Alcohol Ethoxylate	VOC	0.16	0.01

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	Storage Tank			
T-6122	C-1214 Alcohol Ethoxylate Storage Tank	VOC	0.01	< 0.01
T-6123	C-1215 Alcohol Ethoxylate Storage Tank	VOC	0.16	< 0.01
T-6124	TOX 8320 Alkoxylate Storage Tank	VOC	< 0.01	< 0.01
T-6127	C-13 Alchol Ethoxylate Storage Tank	VOC	0.16	< 0.01
T-6128	C-1214 Alcohol Ethoxylate Storage Tank	VOC	0.01	< 0.01
T-6129	C-1214 Alcohol Ethoxylate Storage Tank	VOC	0.01	< 0.01
T-6129A	C-10 Alcohol Ethoxylate Storage Tank	VOC	0.16	< 0.01
T-6131	C-11 Alcohol Storage Tank	VOC	< 0.01	< 0.01
T-6137	TOX 8322 (Filtered) Storage Tank	VOC	0.58	0.03
T-6138	Flex Product Storage Tank	VOC	0.05	< 0.01
T-6140	C-911 Alcohol Ethoxylate Storage Tank	VOC	0.16	< 0.01
T-6141	Flex Raw Storage Tank	VOC	< 0.01	< 0.01
T-6143	C-11 Alcohol Ethoxylate Storage Tank	VOC	0.16	< 0.01
T-6144	Flex Product Storage Tank	VOC	0.04	< 0.01
T-6145	Flex Product Storage Tank	VOC	0.05	< 0.01
T-6147	Nonyl Phenol Ethoxylate Storage Tank	VOC	0.09	< 0.01
T-6150	Nonyl Phenol Storage Tank	VOC	< 0.01	<0.01
T-6220	Tallow Amine Storage Tank	VOC	2.59	0.11
T-1146	Sulfuric Acid Storage Tank	H_2SO_4	< 0.01	0.01
WW-FUG	Wastewater Fugitive Components	VOC	0.06	0.28
EGEN-1	Emergency Generator Engine No. 1	VOC	1.95	0.10

Emission Sources - Maximum Allowable Emission Rates

		CO	21.46	1.07
		SO_2	0.03	< 0.01
		NO_X	37.07	1.85
		PM	1.24	0.06
		PM_{10}	1.24	0.06
		$PM_{2.5}$	1.24	0.06
EGEN-2	Emergency Generator Engine No. 2	VOC	1.95	0.10
		CO	21.46	1.07
		SO_2	0.03	< 0.01
		NO_X	37.07	1.85
		PM	1.24	0.06
		PM_{10}	1.24	0.06
		$PM_{2.5}$	1.24	0.06
FWP-1	Fire Water Pump No. 1	VOC	0.38	0.02
		CO	4.15	0.21
		SO_2	0.03	< 0.01
		NO_X	7.16	0.36
		PM	0.24	0.01
		PM_{10}	0.24	0.01
		$PM_{2.5}$	0.24	0.01
FWP-2	Fire Water Pump No. 2	VOC	0.38	0.02
		CO	4.15	0.21
		SO_2	0.03	< 0.01
		NO_X	7.16	0.36

Emission Sources - Maximum Allowable Emission Rates

		PM	0.24	0.01
		PM_{10}	0.24	0.01
		$PM_{2.5}$	0.24	0.01
FWP-3	Fire Water Pump No. 3	VOC	0.05	< 0.01
		CO	0.55	0.03
		SO_2	< 0.01	< 0.01
		NO_X	0.94	0.05
		PM	0.03	< 0.01
		PM_{10}	0.03	< 0.01
		$PM_{2.5}$	0.03	< 0.01
EGEN-1TK	Emergency Generator 1 Diesel Tank	VOC	< 0.01	< 0.01
EGEN-2TK	Emergency Generator 2 Diesel Tank	VOC	0.01	< 0.01
FWP-1 TK	Fire Water Pump 1 Diesel Tank	VOC	0.01	< 0.01
FWP-2 TK	Fire Water Pump 2 Diesel Tank	VOC	0.01	< 0.01
FWP-3 TK	Fire Water Pump 3 Diesel Tank	VOC	0.01	< 0.01
VENT STK 1	Vent Stack 1	VOC	0.10	0.01
LAB-VENT	QC/Environmental Lab Vent	VOC	0.10	0.43
CAT-LOAD 1	Reactor 1 Catalyst Loading	PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01
CAT-LOAD 2	Reactor 2 Catalyst Loading	PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01

Emission Sources - Maximum Allowable Emission Rates

CAT-LOAD 3	Reactor 3 Catalyst Loading	PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01
EQU-CLNMSS	Equipment Cleaning MSS	VOC	0.10	< 0.01
LIN-OPNMSS	Line Opening MSS	VOC	0.18	0.34
TK-WASHMSS	Tank Washing MSS	VOC	0.01	0.01
		H_2SO_4	0.01	< 0.01
VAC-TRKMSS	Vacuum Truck MSS	VOC	0.04	< 0.01
		H_2SO_4	< 0.01	< 0.01
VES-DEPMSS	Vessel Depressuring MSS	VOC	< 0.01	< 0.01
Phase 1 (6)				
CWT-1	Cooling Tower (Phase 1)	VOC	0.48	2.10
		PM	0.04	0.13
		PM_{10}	0.03	0.11
		$PM_{2.5}$	<0.01	<0.01
SCRUBBER	Scrubber (Phase 1)	VOC	0.41	0.02
		PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01
VENT STK 2	Vent Stack 2 (Phase 1)	VOC	0.05	< 0.01
RC-LOAD	Railcar Loading (Phase 1)	VOC	1.03	0.45
TT-LOAD	Tank Truck Loading (Phase 1)	VOC	0.24	0.45
PIPE-FUG1	Piping Fugitive Components (Unloading) (Phase 1) (5)	VOC	0.05	0.21
PIPE-FUG2	Piping Fugitive Components (Process) (Phase 1) (5)	VOC	0.29	1.26

Emission Sources - Maximum Allowable Emission Rates

PIPE-FUG3	Piping Fugitive Components (Non EO-PO) (Phase 1) (5)	VOC	0.63	2.76
Phase 2 (7)				
CWT-1	Cooling Tower (Phase 2)	VOC	0.64	2.81
		PM	0.05	0.18
		PM10	0.04	0.14
		PM2.5	<0.01	<0.01
SCRUBBER	Scrubber (Phase 2)	VOC	0.54	0.03
		PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01
VENT STK 2	Vent Stack 2 (Phase 2)	VOC	0.10	0.01
RC-LOAD	Railcar Loading (Phase 2)	VOC	1.03	0.59
TT-LOAD	Tank Truck Loading (Phase 2)	VOC	0.24	0.59
PIPE-FUG1	Piping Fugitive Components (Unloading) (Phase 2) (5)	VOC	0.06	0.28
PIPE-FUG2	Piping Fugitive Components (Process) (Phase 2) (5)	VOC	0.38	1.68
PIPE-FUG3	Piping Fugitive Components (Non EO-PO) (Phase 2) (5)	VOC	0.86	3.76
CAT-LOAD 4	Reactor 4 Catalyst Loading (Phase 2)	PM	< 0.01	< 0.01
		PM_{10}	< 0.01	< 0.01
		$PM_{2.5}$	< 0.01	< 0.01
T-6121	Flex Product Storage Tank (Phase 2 only)	VOC	0.01	< 0.01
T-6132	Flex Product Storage Tank (Phase 2 only)	VOC	0.10	< 0.01
T-6133	Flex Product Storage Tank (Phase 2 only)	VOC	0.10	< 0.01
T-6142	Flex Product Storage Tank (Phase 2 only)	VOC	0.02	< 0.01

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T-6148	Flex Product Storage Tank (Phase 2 only)	VOC	0.16	< 0.01
T-6153	Flex Product Storage Tank (Phase 2 only)	VOC	0.10	< 0.01
T-6154	Flex Product Storage Tank (Phase 2 only)	VOC	0.10	< 0.01
T-6155	Flex Product Storage Tank (Phase 2 only)	VOC	0.10	< 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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
H_2SO_4 - sulfuric acid
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
(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) Emission rates for Phase 1 are effective upon issuance of the permit amendment application dated December 20, 2019.
(7) Emission rates for Phase 2 are effective upon Phase 1 completion and construction of Reactor 4 and the associated equipment.

Date: DRAFT