Emission Sources - Maximum Allowable Emission Rates

Permit Number 148156

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)
Z-3710	Acid Scrubber Unit – Purge EO Offloading Lines Purging	VOC	0.01	<0.01
		H_2SO_4	<0.01	<0.01
Z-3720	Acid Scrubber Unit – Ethoxylation Process Area	VOC	<0.01	<0.01
		H_2SO_4	<0.01	0.02
Z-3730	Caustic Scrubber – Normal Operation	SO_2	0.05	0.03
		NaOH	<0.01	<0.01
	Caustic Scrubber – MSS Monthly Purge	SO_2	0.05	<0.01
		NaOH	<0.01	<0.01
	Caustic Scrubber – MSS 3-5 years Maintenance	SO_2	0.05	<0.01
		NaOH	<0.01	<0.01
Z-3713	Bionomic Scrubber – Normal Operation	SO_2	0.11	0.47
		NaOH	<0.01	<0.01
	Bionomic Scrubber – MSS Tank Refilling	SO_2	0.24	1.04
		NaOH	<0.01	0.01
	$NaHSO_3$ Storage Tank	$NaHSO_3$	0.01	<0.01
T-2501	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2502	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2503	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2504	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2505	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2506	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2510	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-

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T-2511	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2512	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2513	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2601	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2602	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2603	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2604	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2605	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2606	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2607	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2608	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2609	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2610	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2611	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-2612	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-3604	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
T-3605	Raw Material and Product Storage Tank	VOC	2.24	-
		Inorganic	0.02	-
TANKS	Raw Material and Product Storage Tank	VOC	-	0.13
		Inorganic	-	<0.01

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PRODLOAD	Product Loading	VOC	0.38	0.04
		Inorganic	<0.01	<0.01
DRUMFILL2	Product Drum Filling	VOC	0.02	0.03
FUG-2	Fugitive Components – Ethoxylation Process Area (5)	VOC	0.30	1.32
		H_2O_2	<0.01	0.01
		KOH	<0.01	<0.01
		NaOH	<0.01	<0.01
		H_2SO_4	0.01	0.04
FUG-NTF	Fugitive Components – North Farm Area (5)	VOC	0.37	1.61
		Inorganic	<0.01	0.01
FUG-STF	Fugitive Components – South Farm Area (5)	VOC	0.27	1.17
		Inorganic	<0.01	0.01
FUG-DRUM	Fugitive Components – Rail Loading Area (5)	VOC	0.02	0.08
FUG-SN1	Fugitive Components – Snake Pit #1 (5)	VOC	0.01	0.06
FUG-SN5	Fugitive Components – Snake Pit #5 (5)	VOC	0.01	0.02
FUG-SN6	Fugitive Components – Snake Pit #6 (5)	VOC	<0.01	0.02
FUG-EOTK	Fugitive Components – EP Storage Area Offloading System (5)	VOC	0.01	0.04
FUG-SI1	Fugitives- Bionomic Scrubber and Storage Tanks (5)	SO_2	0.02	0.10
		Inorganic	0.02	0.09
		NaOH	0.14	0.63
		$NaHSO_3$	<0.01	0.01
FUG-SI2	Fugitives- SI Reactor (5)	VOC	<0.01	0.01
		SO_2	0.02	0.08
		NaOH	<0.01	<0.01
		Inorganic	0.01	0.03
FUG-SI3	Fugitives- SO_2 Storage Area (5)	SO_2	0.04	0.18
		NaOH	<0.01	<0.01
FUG-TRKLD	Fugitive Components – Truck Loading (5)	VOC	0.01	0.04
		Inorganic	<0.01	0.01
FUG-RAILLD	Fugitive Components –Railcar Loading (5)	VOC	0.02	0.07
		Inorganic	<0.01	0.01

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SUMP-01	Wastewater Sump	VOC	0.01	<0.01
SUMP-02	Wastewater Sump - Load Area	VOC	<0.01	<0.01
SUMP-03	Wastewater Sump - Process Area	VOC	<0.01	<0.01
SUMP-04	Wastewater Sump - Raw Material and Product Storage Area	VOC	<0.01	<0.01
SUMP-05	Wastewater Sump - EO Storage Area	VOC	<0.01	<0.01
TBHQ-LOAD	Solid Loading – TBHQ	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
BPA-LOAD	Solid Loading – BPA	PM	0.05	0.22
		PM_{10}	0.02	0.01
		$PM_{2.5}$	<0.01	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) H_2SO_4 - sulfuric acid
H_2O_2 - hydrogen peroxide
Inorganic - inorganic compounds includes sodium hydroxide 50%, sodium bisulfite 43%, hydrogen peroxide, phosphoric acid, and potassium hydroxide, sodium isethionates
KOH - potassium hydroxide
$NaHSO_3$ - sodium bisulfite
NaOH - sodium hydroxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
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
SO_2 - 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) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: May 24, 2019