Emission Sources - Maximum Allowable Emission Rates

Permit Number 2035A

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)
FT16001300	Phosphoric Acid Tank	H_3PO_4	0.01	0.01
FS16056800	HCl Tank Scrubber	HCl	0.01	0.01
FT16056100	Hydrochloric Acid Tank	HCl	0.01	0.04
FT16056900	H_3PO_4 Make-up Tank	H_3PO_4	0.01	0.01
FT16409500	Line 6 Extruder Melt Pot	VOC	0.31	0.02
FT41070400	Sulfuric Acid Tank	H_2SO_4	0.02	0.01
FI16452900	Incinerator/Scrubber Stack	CO	2.70	11.83
		HCl	0.56	2.46
		NO_x	1.25	5.48
		VOC	0.06	0.26
		SO_2	<0.01	<0.01
		Acetone	<0.01	<0.01
		Methylene Chloride	0.04	0.19

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FF16027000	Decomposition System Flare	CO	6.31`	27.64
		HCl	0.12	0.52
		NO_x	0.18	0.77
		VOC	0.01	0.04
		SO_2	<0.01	<0.01
		Methylene Chloride	<0.01	0.01
FF41080100	BPA Flare	CO	2.58	2.41
		NO_x	0.30	0.28
		VOC	0.03	0.03
		SO_2	<0.01	<0.01
		Acetone	<0.01	<0.01
FCMAKCAS00	Carbon Adsorption System	VOC	0.18	0.13
		Methylene Chloride	0.14	0.10
DIEOVEN 3-5	Die Oven Nos. 3, 4, and 5 (8)	CO	0.05 (6)	0.43 (7)
		NO_x	0.03 (6)	0.23 (7)
		SO_2	<0.01 (6)	0.02 (7)
		VOC	0.02 (6)	0.15 (7)
		PM	0.01 (6)	0.11 (7)
		PM_{10}	0.01 (6)	0.11 (7)
		$PM_{2.5}$	0.01 (6)	0.11 (7)
		HCL	<0.01 (6)	0.01 (7)
FV16249100	Packaging Station Baghouse 1	PM	0.50	2.00
		PM_{10}	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	<0.01	<0.01

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FV16280300	Packaging Station Baghouse 2	PM	0.50	1.50
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV16298000	Packaging Station Baghouse 3	PM	0.36	1.08
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV16213930	North Bulk Loading Baghouse	PM	0.58	2.54
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV16250100	South Bulk Loading Baghouse	PM	0.50	2.19
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV16258800	All Polycarbonate Silo Vent	PM	1.57	2.31
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV40541112	BPA Silo/Truck Loading Vent	PM	1.13	0.91
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV40543200	BPA Railcar Loading Vent	PM	0.02	0.02
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FV16158700	Line 2 Baghouse	PM	0.62	2.70
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV163434RO	Line 4 Baghouse	PM	0.20	0.88
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FV16420800	Lines 5 and 6 Baghouse	PM	0.60	2.63
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FUGITIVES	Fugitives (5)	Acetone	0.53	2.31
		Cl_2	0.02	0.09
		$COCl_2$	0.01	0.05
		VOC	2.85	12.46
		Methylene Chloride	1.56	6.85
		HCl	0.01	0.55
		H_3PO_4	0.02	0.09
		Ammonia (NH_3)	0.08	0.33

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FCMAKCASSOO MAK-CARBOX	Carbon Box Emissions	Monochlorobenzene	0.18	0.09
		Total VOC	0.18	0.09
		Methylene Chloride	0.14	0.07
		PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
PCS-MSSNH3 PCS-NH_3	Ammonia Reaction Test	Ammonia (NH_3)	0.04	0.01
PCS-MSSATM MAK-DEGR	Degreaser	Petroleum Distillate	0.01	0.01
PCS-MSSATM PCS-BAGCLR	Baghouse Clearing	PM	0.39	0.01
		PM_{10}	0.18	0.01
		$PM_{2.5}$	0.03	0.01
PCS-MSSATM PCS-FRCTK	Frac Tanks	Phenol	0.01	0.01
		Monochlorobenzene	0.06	0.01
		Total VOC	0.07	0.02
		Methylene Chloride	1.39	0.06
		Acetone	2.23	0.05
		HCl	0.01	0.01
PCS-MSSATM PCS-VACTR	Vacuum Trucks	Phenol	0.01	0.01
		Monochlorobenzene	0.07	0.01
		Total VOC	0.08	0.02
		Methylene Chloride	1.74	0.06
		Acetone	1.39	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PCS-MSSATM PCS-INT	Instrument Clearing	Total VOC	0.27	0.01
		Cl_2	0.01	0.01
PCS-MSSATM BPA-TOT	BPA Tote Loading	Methyl Isobutyl Ketone	0.35	0.01
		Total VOC	0.35	0.01
PCS-MSSATM BPA-REAC	BPA Reactor Catalyst Loading	Phenol	0.56	0.01
PCS-MSSATM PCS-TKTR	Tank Trucks	Phenol	0.01	0.01
		Methyl Isobutyl Ketone	1.50	0.13
		Monochlorobenzene	0.07	0.01
		Total VOC	1.58	0.13
		Methylene Chloride	1.54	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PCS-MSSATM PCS-UNCONT	Uncontrolled Equipment Clearing	Phenol	13.94	0.35
		Bisphenol A	0.16	0.01
		Methyl Isobutyl Ketone	7.97	0.04
		Diacetone Alcohol	0.96	0.01
		Mercaptopropionic Acid	0.02	0.01
		Monochlorobenzene	20.69	1.14
		Tert-butylphenol	1.28	0.01
		Ethylene Glycol	0.03	0.01
		Ethyl Chloride	0.01	0.01
		EPP	0.01	0.01
		Total VOC	45.06	1.60
		HCl	0.56	0.01
		Acetone	6.14	0.02
		Ammonia (NH_3)	1.00	0.01
		Methylene Chloride	20.69	1.34
		High boiling diphenyl carbonyl (DPC)	0.01	0.01
FF16027000 MAK-COPRG	CO Purging	CO	18.24	0.44
		NO_x	0.25	0.01

Emission Sources - Maximum Allowable Emission Rates

FF41080100 BPA-FLR	BPA Unit Flaring	Phenol	0.01	0.01
		Methyl Isobutyl Ketone	0.01	0.01
		VOC-U	0.07	0.04
		Total VOC	0.08	0.04
		Acetone	0.01	0.01
		NO_x	0.79	0.39
		CO	6.79	3.35
		SO_2	0.01	0.01
PCS-MSSCNT BPA-REAC	BPA Reactor Catalyst Loading	Phenol	0.21	0.01
PCS-MSSCNT PCS-CONT (9)	Controlled Equipment Clearing	Phenol	1.08	0.01
		Bisphenol A	3.17	0.22
		Methyl Isobutyl Ketone	0.48	0.01
		Diacetone Alcohol (4-Hydroxy-4-methyl-2-pentanone)	0.06	0.01
		Mercaptopropionic Acid	0.01	0.01
		Monochlorobenzene	2.46	0.02
		tert-Butylphenol	0.01	0.01
		Ethyl Chloride	0.01	0.01
		Ethylene Glycol	0.01	0.01
		EPP	0.01	0.01
		Total VOC	7.30	0.32

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PCS-MSSCNT (9)	Controlled Equipment Clearing	HCl	0.03	0.01
		Acetone	0.57	0.01
		Ammonia (NH_3)	0.01	0.01
		Methylene Chloride	3.99	0.02
		High boiling diphenyl carbonyl (DPC)	0.01	0.01
		NO_x	0.19	0.01
		CO	1.62	0.09

(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-U - VOC unspeciated
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, 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
CO - carbon monoxide
HCl - hydrochloric acid
Cl_2 - chlorine
$COCl_2$ - phosgene
H_3PO_4 - phosphoric acid
H_2SO_4 - sulfuric acid
EPP - Ethylene Piperidine
(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) Hourly emissions from each Die Oven.
(7) Combined annual emissions from all three Die Ovens. The total hours of operations for all three die ovens are limited to 17,000 hours per year.
(8) Until the installation of Die Oven 5 is complete, Die Ovens 1 and 2 may continue to operate. While in operation, Die Ovens 1 and 2 will be subject to the requirements of Special Condition 19.
(9) See Attachment C Footnote 1 in Special Conditions for PCS-MSSCNT.

Date: May 24, 2022