Emission Sources - Maximum Allowable Emission Rates

Permit Number 978B

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)
EK-120	TCB Storage Tank	1,2,4-TCB	0.04	0.01
EK-212	BAPMA Storage Tank (J-212, J-214, J-215,and J-216) Water Scrubber	Amine	0.01	<0.01
ED-565	Dicamba Flaker Absorber	Dicamba	0.032	0.14
EC-568	Dicamba Bag Loading Dust Collector	PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
EA-506	D-505 Scrubber	VOC	0.40	1.73
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
ED-300A	Vent Scrubber (Tank J-300)	HCl	0.09	<0.01
ED-300	HCl Unloading	HCl	0.04	0.08
EB-141	Tank Scrubber (HCl Tanks)	HCl	0.41	0.14
ED-206A	Vent Absorber (Tank J-206) (6)	Dimethyl amine	0.34	0.09
ED-206B	D-206B Vent Absorber (Tank J-205)	Diglycol amine	<0.01	<0.01

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Boiler-Cap	Boiler Emissions Cap (EB-2, EB-4, and EB-5) (9)	PM_{10}	2.38	10.43
		$PM_{2.5}$	2.38	10.43
		NO_x	16.18	70.85
		CO	14.83	44.95
		VOC	1.59	6.95
		SO_2	0.17	0.75
EB-2	Boiler No. 2	PM_{10}	0.72	3.16
		$PM_{2.5}$	0.72	3.16
		NO_x	9.40	41.17
		CO	7.97	14.89
		VOC	0.52	2.29
		SO_2	0.06	0.25
EB-4	Boiler No. 4	PM_{10}	0.94	4.11
		$PM_{2.5}$	0.94	4.11
		NO_x	5.81	25.44
		CO	3.28	14.37
		VOC	0.54	2.37
		SO_2	0.06	0.25
EB-5	Boiler No. 5	PM_{10}	0.72	3.16
		$PM_{2.5}$	0.72	3.16
		NO_x	0.97	4.24
		CO	3.58	15.68
		VOC	0.52	2.29
		SO_2	0.06	0.25

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EK-275	Dicamba Unit Fume Burner	HCl	1.99	2.19
		Cl_2	0.02	0.01
		NO_x	0.40	1.74
		MeOH	1.81	0.08
		CH_3Cl	0.38	<0.01
		1,2,4-TCB	0.10	0.02
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.03	0.13
		CO	0.33	1.46
		SO_2	<0.01	0.01
		Xylene	0.32	0.06
		Diethylene triamine	<0.01	<0.01
		Dimethyl amine	1.21	0.04
		Diglycol amine	<0.01	<0.01
		Dicamba	<0.01	<0.01
		VOC	2.05	0.11
		NaOH	0.03	<0.01
		KOH	0.03	<0.01
		Dichlorophenol	0.02	<0.01
		BAPMA	<0.01	<0.01
		Butanol-(1)	<0.01	<0.01
		Alkylated Naphthalene	<0.01	<0.01
		Sodium Sulfate	<0.01	0.01
		Dichloroanisole	<0.01	<0.01
		Dimethyl Ether	<0.01	<0.01

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EK-203	K-203 Flare	HCl	<0.01	<0.01
		VOC (7)	16.58	53.05
		Dimethyl ether	15.19	49.49
		MeOH	0.95	1.81
		Xylene	0.36	1.44
		CH_3Cl	0.08	0.30
		NO_x	2.79	9.02
		CO	5.58	18.01
		SO_2	< 0.01	< 0.01
FUG	Dicamba Process Fugitives (5)	Xylene	0.01	0.03
		MeOH	0.11	0.49
		1,2,4-TCB	0.80	3.49
		CH_3Cl	0.40	1.75
		HCl	0.71	3.12
ED-107	Tank J-107 Vent	VOC	0.01	0.01
		MeOH	0.01	0.01
		Sodium Dichlorophenol	<0.0001	<0.0001
		NaCl	<0.01	<0.01
		NaOH	<0.01	<0.01
NGFUG	Natural Gas Piping Fugitives (5)	VOC	0.06	0.27
EWW-TR3	North Wastewater Tank Farm	VOC	0.01	0.05
COOLTWR	Cooling Tower (5)	VOC	0.57	2.48
		PM_{10}	0.07	0.30
		$PM_{2.5}$	0.07	0.30

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Planned Maintenance, Startup, and Shutdown (MSS) Activities				
EK-203	K-203 Flare	VOC (7)	105.35	0.46
		NO_x	5.33	0.25
		CO	18.29	0.53
		SO_2	0.01	< 0.01
EK-275	Dicamba Unit Fume Burner	VOC (7)	3.75	0.01
EK-120	TCB Storage Tank CAS	VOC (7)	0.03	0.01
EK-212	BAPMA Storage Tank (J-212, J-214, J-215,and J-216) Water Scrubber	Amine	0.01	0.01
ED-206A	Vent Absorber (Tank J-206)	VOC (7)	0.02	0.01
ED-206B	D-206B Vent Absorber (Tank J-205)	VOC (7)	0.01	0.01
ED-300	HCl Unloading	HCl	0.07	0.01
ED-300A	Vent Scrubber (Tank J-300)	HCl	0.35	0.01
MSSDICAM	Compressors	VOC (7)	1.74	(8)
	Filter Purging	VOC (7)	0.22	(8)
	Loading Rack	VOC (7)	0.40	(8)
	Pumps A-204 C & D	VOC (7)	1.85	(8)
	Tank Breathing	VOC (7)	0.01	(8)
	Tank Fume Burner	VOC (7)	0.75	(8)
	Tank Inspections	VOC (7)	11.16	(8)
	Vacuum Trucks	VOC (7)	0.01	(8)
	Wastewater Tank	VOC (7)	0.19	(8)
	Uncontrolled Emission Caps	VOC (7)		0.11

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(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) 1,2,4-TCB - 1,2,4 trichlorobenzene
Dicamba - 3,6 dichloro-o-anisic acid (and isomers)
HCl - hydrogen chloride
Cl_2 - chlorine
NO_x - total oxides of nitrogen
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
SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
MeOH - methanol
CH_3Cl - methyl chloride
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(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) Operations are limited to 200 hours per year.
(7) Total VOC is inclusive of all speciated emission rates.
(8) Annual Cap of all uncontrolled MSS emissions.
(9) EPN Boiler-Cap caps the combined emissions for EPNs EB-2, EB-4, and EB-5.

Date: January 15, 2016