Emission Sources - Maximum Allowable Emission Rates

Permit Number 5168

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 (6)	
			lbs/hour	TPY (4)
DC1	Gelwhite Blunger Tank Dust Collector Stack	PM	0.02	0.08
		PM_{10}	0.01	0.06
		$PM_{2.5}$	0.01	0.01
GWDRY1	Gelwhite #1 Steam Dryer Stack	PM	0.01	0.02
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
GWDRY2	Gelwhite #2 Steam Dryer Stack	PM	0.01	0.02
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
GWDRY3	Gelwhite #3 Steam Dryer Stack	PM	0.01	0.02
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
DC2	Gelwhite Pulverizer Dust Collector Stack	PM	0.08	0.34
		PM_{10}	0.06	0.25
		$PM_{2.5}$	0.01	0.04
DC3	Gelwhite Weigh Hopper & Marion Mixer Dust Collector Stack	PM	0.07	0.31
		PM_{10}	0.06	0.23
		$PM_{2.5}$	0.01	0.04
DC6	Gelwhite Pulverizer Mill Dust Collector Stack	PM	0.30	1.30
		PM_{10}	0.22	0.96
		$PM_{2.5}$	0.04	0.16

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DC4	Gelwhite Packaging w/ Heater Dust Collector Stack	VOC (combustion)	0.01	0.04
		NO_x	0.15	0.64
		SO_2	0.01	0.01
		CO	0.12	0.54
		PM	0.07	0.30
		PM_{10}	0.05	0.22
		$PM_{2.5}$	0.01	0.05
BLR2	#2 Cleaver Brooks Boiler Stack	VOC (combustion)	0.05	0.20
		NO_x	0.82	3.61
		SO_2	0.01	0.02
		CO	0.69	3.03
		PM	0.06	0.27
		PM_{10}	0.06	0.27
		$PM_{2.5}$	0.06	0.27
BLR3	#3 Cleaver Brooks Boiler Stack	VOC (combustion)	0.07	0.31
		NO_x	1.30	5.58
		SO_2	0.01	0.03
		CO	1.07	4.69
		PM	0.10	0.42
		PM_{10}	0.10	0.42
		$PM_{2.5}$	0.10	0.42
B15	Dry Process B15 Crude Silo Dust Collector Vent	PM	0.24	0.88
		PM_{10}	0.17	0.65
		$PM_{2.5}$	0.03	0.11
B16	Dry Process B16 Crude Silo Dust Collector Vent	PM	0.24	0.88
		PM_{10}	0.17	0.65

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		$PM_{2.5}$	0.03	0.11
TK1	#1 Amine Tank Vent	VOC (ethanol)	5.58	1.10
		VOC (benzyl chloride)	<0.01	<0.01
		VOC (methyl chloride)	0.25	0.02
TK2	#2 Amine Tank Vent	VOC (ethanol)	3.72	1.10
TK3	#3 Amine Tank Vent	VOC (ethanol)	5.58	1.35
		VOC (benzyl chloride)	<0.01	<0.01
		VOC (methyl chloride)	0.25	0.03
TK4	#4 Amine Tank Vent	VOC (ethanol)	3.72	1.08
TK5	#5 Amine Tank Vent	VOC (ethanol)	7.82	1.08
TK6	#6 Amine Tank Vent	VOC (ethanol)	3.72	1.35
BLR10	Thermal Oxidizer #1 Stack (During periods when only #1 Dry Process Line (DP1) emissions are routed to Thermal Oxidizer #1 and #2 Dry Process Line (DP2) emissions are routed to Thermal Oxidizer #3)	VOC (ethanol)	0.15	0.53
		VOC (combustion)	0.04	0.17
		VOC (benzyl chloride)	<0.01	-
		Cl_2	<0.01	-
		HCl	0.63	-
		VOC (methyl chloride)	0.04	-
		NO_x	0.33	1.28
		SO_2	<0.01	0.02
		CO	2.66	10.50
		PM	0.06	0.24
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
BLR10	Thermal Oxidizer #1 Stack (During periods when DP1 and DP2 emissions are routed	VOC (ethanol)	0.35	1.13
		VOC (combustion)	0.04	0.17
		VOC (benzyl chloride)	<0.01	-

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		Cl_2	<0.01	-
		HCl	1.46	-
		VOC (methyl chloride)	0.10	-
		NO_x	0.33	1.28
		SO_2	<0.01	0.02
		CO	2.66	10.50
		PM	0.06	0.24
		PM_{10}	0.06	0.24
		$PM_{2.5}$	0.06	0.24
RBGR	#1 Dry Process Line Mill, Organo Rebagger, and Packaging Dust Collector Stack	PM	0.28	1.05
		PM_{10}	0.21	0.78
		$PM_{2.5}$	0.03	0.13
BLR12	Thermal Oxidizer #3 Stack (Except during periods when DP2 emissions are routed to Thermal Oxidizer #1 and Thermal Oxidizer #3 is shutdown)	VOC (ethanol)	0.50	1.50
		VOC (combustion)	0.02	0.06
		VOC (benzyl chloride)	0.01	-
		Cl_2	<0.01	-
		HCl	0.84	-
		VOC (methyl chloride)	0.06	-
		NO_x	0.63	2.48
		SO_2	<0.01	0.01
		CO	3.04	12.00
		PM	0.02	0.10
		PM_{10}	0.02	0.10
		$PM_{2.5}$	0.02	0.10
DC5	#2 Dry Process Line Mill and Packaging Dust Collector Stack	PM	0.28	1.05
		PM_{10}	0.21	0.78

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		$PM_{2.5}$	0.03	0.13
BLR13	Thermal Oxidizer #4 Stack	VOC (ethanol)	0.50	1.50
		VOC (combustion)	0.02	0.09
		VOC (benzyl chloride)	0.01	-
		Cl_2	<0.01	-
		HCl	0.84	-
		VOC (methyl chloride)	0.06	-
		NO_x	0.58	2.30
		SO_2	<0.01	0.01
		CO	2.82	11.10
		PM	0.03	0.12
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.03	0.12
DC7	#3 Dry Process Line Mill, Rebagger, and Packaging Dust Collector Stack	PM	0.28	1.05
		PM_{10}	0.21	0.78
		$PM_{2.5}$	0.03	0.13
C11	C11 Crude Silo Dust Collector Vent	PM	0.24	1.03
		PM_{10}	0.17	0.76
		$PM_{2.5}$	0.03	0.12
C12	C12 Crude Silo Dust Collector Vent	PM	0.24	1.03
		PM_{10}	0.17	0.76
		$PM_{2.5}$	0.03	0.12
B12	B12 Crude Silo Dust Collector Vent	PM	0.24	1.03
		PM_{10}	0.17	0.76
		$PM_{2.5}$	0.03	0.12
AMD	STPP & Soda Ash	PM	0.01	<0.01

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		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
RXNTK1	#1 Reaction Tank	VOC (ethanol)	0.02	0.06
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.10	0.04
RXNTK2	#2 Reaction Tank	VOC (ethanol)	0.02	0.06
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.11	0.04
PFT1	Flash and Fluid Process #1 Press Feed Tank	VOC (ethanol)	0.03	0.07
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.07	0.03
ROOF3	Flash and Fluid Process #3 Press Roof Vent	VOC (ethanol)	1.22	2.70
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.06	0.01
PFT3	Flash and Fluid Process #3 Press Feed Tank	VOC (ethanol)	0.22	0.71
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
ROOF2	Flash and Fluid Process #2 Press Roof Vent	VOC (ethanol)	0.61	1.81
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.03	0.01
FLOAT1	Flash and Fluid Process #1 Float Cells (5)	VOC (ethanol)	3.24	8.34
		VOC (benzyl alcohol)	0.01	0.01
		VOC (methyl chloride)	0.31	0.16
VFBBGH	Flash and Fluid Process Vibrating Fluidized Bed Dryer Dust Collector Stack	VOC (ethanol)	6.06	10.55
		VOC (combustion)	0.04	0.16
		VOC (benzyl alcohol)	0.50	0.79

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		VOC (methyl chloride)	0.03	0.01
		NO_x	0.78	2.92
		SO_2	0.01	0.02
		CO	0.66	2.45
		PM	2.10	7.71
		PM_{10}	1.53	5.71
		$PM_{2.5}$	0.25	0.93
3	Flash and Fluid Process ACM Mill Dust Collector Stack	PM	0.34	1.26
		PM_{10}	0.25	0.94
		$PM_{2.5}$	0.04	0.15
SBAUN	Flash and Fluid Process Schlitterbaun Screen (5)	VOC (ethanol)	0.18	0.47
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
PFT2	Flash and Fluid Process #2 Press Feed Tank	VOC (ethanol)	0.03	0.07
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.07	0.03
ROOF1	Flash and Fluid Process #1 Press Roof Vent	VOC (ethanol)	0.61	1.81
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.03	0.01
8	Flash and Fluid Process Flash Dryer Dust Collector Stack	VOC (ethanol)	4.65	7.95
		VOC (combustion)	0.05	0.18
		VOC (benzyl alcohol)	0.38	0.61
		VOC (methyl chloride)	0.02	0.01
		NO_x	0.63	2.35
		SO_2	0.01	0.02
		CO	0.96	3.57

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		PM	1.39	5.17
		PM_{10}	1.03	3.83
		$PM_{2.5}$	0.17	0.62
7	Flash and Fluid Process Impact Mill Dust Collector Stack	PM	0.10	0.38
		PM_{10}	0.08	0.28
		$PM_{2.5}$	0.01	0.05
BLR11	Thermal Oxidizer #2 Stack	VOC (ethanol)	0.98	2.42
		VOC (combustion)	0.06	0.26
		VOC (benzyl chloride)	<0.01	-
		Cl_2	<0.01	-
		HCl	0.55	-
		VOC (methyl chloride)	0.09	-
		NO_x	1.25	4.94
		SO_2	0.01	0.03
		CO	5.41	21.33
		PM	0.09	0.35
		PM_{10}	0.09	0.35
		$PM_{2.5}$	0.09	0.35
	Total Thermal Oxidizer Emissions (BLR10, BLR11, BLR12, and BLR13)	VOC (benzyl chloride)	-	0.01
		Cl_2	-	0.01
		HCl	-	1.67
		VOC (methyl chloride)	-	0.11
TK15	Flash and Fluid Process #15 Tank	VOC (ethanol)	0.03	0.06
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.09	0.04
TK16	Flash and Fluid	VOC (ethanol)	0.03	0.06

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		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.09	0.04
TK19	Flash and Fluid Process #19 Tank	VOC (ethanol)	0.03	0.07
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.09	0.04
SPUTK1	#1 SPU Tank	VOC (ethanol)	0.61	0.19
		VOC (benzyl chloride)	<0.01	<0.01
		VOC (methyl chloride)	0.03	<0.01
SPUTK2	#2 SPU Tank	VOC (ethanol)	0.01	0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.01	0.02
SPUTK3	#3 SPU Tank	VOC (ethanol)	0.01	0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.01	0.02
SPUBB	SPU Unloading (5)	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
SPUPRESS	SPU Press (5)	VOC (ethanol)	0.25	0.97
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	0.01	<0.01
FBDRYER	SPU Fluidized Bed Dryer Dust Collector Stack	VOC (ethanol)	3.63	4.90
		VOC (combustion)	0.01	0.04
		VOC (benzyl alcohol)	0.51	0.85
		VOC (methyl chloride)	0.05	0.03
		NO_x	0.16	0.69
		SO_2	0.01	0.01

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		CO	0.13	0.58
		PM	0.34	1.50
		PM_{10}	0.25	1.11
		$PM_{2.5}$	0.04	0.18
DC8	SPU Mill Dust Collector Stack	PM	0.04	0.16
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.01	0.02
BAGGER	SPU Packaging Dust Collector Stack	PM	0.15	0.66
		PM_{10}	0.11	0.49
		$PM_{2.5}$	0.02	0.08
WWTK1	#1 Wastewater Tank	VOC (ethanol)	0.67	2.49
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
CLAR	Wastewater Clarifier Tank (5)	VOC (ethanol)	0.66	2.46
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
WWTK2	Wastewater Fractionating Sludge Tank	VOC (ethanol)	<0.01	<0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
POND1	#1 Pond (5)	VOC (ethanol)	<0.01	<0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
POND2	#2 Pond (5)	VOC (ethanol)	0.54	1.78
		VOC (benzyl alcohol)	0.01	0.01
		VOC (methyl chloride)	<0.01	<0.01
POND3	#3 Pond (5)	VOC (ethanol)	0.65	2.18

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		VOC (benzyl alcohol)	0.01	0.02
		VOC (methyl chloride)	<0.01	<0.01
POND6	#6 Pond (5)	VOC (ethanol)	<0.01	<0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
FUG	Equipment Leak Fugitives (5)	VOC (ethanol)	0.56	2.45
		VOC (benzyl chloride)	<0.01	<0.01
		VOC (benzyl alcohol)	<0.01	<0.01
		VOC (methyl chloride)	<0.01	<0.01
HEXMAIN	Heat Exchanger Maintenance	VOC (ethanol)	2.53	0.22

(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
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
Cl_2 - chlorine
HCl - hydrogen chloride
(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) Planned startup and shutdown emissions are included. Maintenance activities other than for the Heat Exchangers are not authorized by this permit.

Date: December 22, 2016