Emission Sources - Maximum Allowable Emission Rates

Permit Number 78440

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)
S10	Regenerative Thermal Oxidizer and Dryers	PM	3.12	13.68
		PM_{10}	3.12	13.68
		$PM_{2.5}$	3.12	13.68
		SO_2	14.00	39.46
		NO_x	5.16	22.60
		VOC	6.19	27.09
		CO	4.00	17.53
S20	Unloading Baghouse	PM	0.84	3.69
		PM_{10}	0.84	3.69
		$PM_{2.5}$	0.84	3.69
S111	DDGS Baghouse	PM	0.97	4.23
		PM_{10}	0.97	4.23
		$PM_{2.5}$	0.97	4.23
		VOC	1.95	8.54
S112	Hammermill Baghouse	PM	1.05	4.59
		PM_{10}	1.05	4.59
		$PM_{2.5}$	1.05	4.59
S40	Fermentation Scrubber	PM	0.15	0.65
		PM_{10}	0.15	0.65
		$PM_{2.5}$	0.15	0.65
		VOC	8.19	35.89
S50	Ethanol Loadout Flare – Truck and railcar loading, Floating roof tank degassing	SO_2	0.02	0.03
		NO_x	1.73	1.70
		CO	6.84	6.72
	Ethanol Loadout Flare – Truck and railcar loading	VOC	11.68	4.77

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	Ethanol Loadout Flare –Tank degassing	VOC	32.45	0.06
S80	Cooling Tower	PM	0.75	3.28
		PM_{10}	0.37	1.64
		$PM_{2.5}$	<0.01	0.01
S100	Emergency Fire Water Pump	PM	0.06	0.01
		PM_{10}	0.06	0.01
		$PM_{2.5}$	0.06	0.01
		SO_2	0.39	0.06
		NO_x	3.45	0.52
		VOC	0.09	0.01
		CO	0.18	0.03
S110A	Boiler Stack 1	PM	1.14	4.99
		PM_{10}	1.14	4.99
		$PM_{2.5}$	1.14	4.99
		SO_2	0.21	0.94
		NO_x	3.00	9.86
		VOC	0.83	3.61
		CO	5.54	24.24
S110B	Boiler Stack 2	PM	1.14	4.99
		PM_{10}	1.14	4.99
		$PM_{2.5}$	1.14	4.99
		SO_2	0.21	0.94
		NO_x	3.00	9.86
		VOC	0.83	3.61
		CO	5.54	24.24
T1	≤200 Proof Storage Tank	VOC	0.34	0.69
T2	≤200 Proof Storage Tank	VOC	0.51	0.51
T3	Denaturant Storage Tank	VOC	0.70	1.60
T4	200 Proof Storage Tank	VOC	0.66	-
T5	200 Proof Storage Tank	VOC	0.66	-

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T4 & T5	200 Proof Storage Tank Cap	VOC	0.93	0.72
T6	Corrosion Inhibitor	VOC	0.20	<0.01
T-OIL	Oil Separation Tanks (EPNs T-OIL5 and T-OIL6)	VOC	0.22	<0.01
LD-OIL	Oil Separation Loading Fugitives	VOC	0.07	<0.01
PL-FUG	Product Loading Fugitives	VOC	4.19	2.83
EQ-FUG	Equipment Leak Fugitives (5)	VOC	0.41	1.79
GH-FUG	Uncontrolled Grain Fugitives associated with unloading baghouse (EPN S20)	PM	0.93	1.11
		PM_{10}	0.25	0.34
		$PM_{2.5}$	0.04	0.06
WD-FUG	Wetcake Fugitives	VOC	0.85	3.74
DG-FUG	Uncontrolled DDGS Fugitives associated with DDGS handling (EPN S111)	PM	0.05	0.07
		PM_{10}	0.02	0.03
		$PM_{2.5}$	0.01	0.01
PV-FUG1	Cook Water Tank	VOC	0.62	2.72
PV-FUG2	Methanator Feed Tank	VOC	0.06	0.26
PV-FUG3	Thin Stillage Tank	VOC	0.14	0.60
PV-FUG4	Syrup Tank	VOC	0.79	3.48
PV-FUG5	Liquefaction Tanks	VOC	0.07	0.32
PV-FUG6	Whole Stillage Tank	VOC	<0.01	0.02
MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSIONS				
MSS_EP	Equipment Painting	VOC	3.62	0.02
MSS_FERM	Fermentation Equipment	VOC	134.40	1.92
MSS_DIST	Distillation Equipment	VOC	9.91	0.04
MSS_TANK1	Tank Farm Maintenance	VOC	8.28	0.04
MSS_TANK2	Tank Farm Degassing and Filling	VOC	20.52	0.02
MSS_LOAD	Ethanol Loadout Operations	VOC	8.28	0.04
MSS_40SD	Fermentation Shutdown Emissions	VOC	10.32	0.21
MSS_OIL	Oil Separation MSS	VOC	0.17	<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.

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(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

(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: February 20, 2019