

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 83160

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. 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 * (8)	
			lb/hr	TPY**
S-10	Grain Receiving Baghouse	PM/PM ₁₀	2.06	9.01
S-20	Hammermill Baghouse	PM/PM ₁₀	1.18	5.16
S-30	Process Regenerative Thermal Oxidizer Stack 1	PM/PM ₁₀ (7)	0.06 (7)	0.26 (7)
		SO ₂ (7)	0.01 (7)	0.02 (7)
		NO _x (7)	0.78 (7)	3.44 (7)
		CO (7)	0.66 (7)	2.89 (7)
		VOC(7)	2.63 (7)	11.50 (7)
		VOC (6)	14.35 (6)	0.03 (6)
S-40	Dryer Regenerative Thermal Oxidizer Stack 2	PM/PM ₁₀	3.50	15.34
		SO ₂	9.69	42.42
		NO _x	10.80	47.30
		CO	7.76	34.00
		VOC	4.18	18.30
		VOC (6)	14.35 (6)	0.03 (6)
S-50	DDGS Loading Baghouse	PM/PM ₁₀	0.39	1.71
S-60	Ethanol Loadout Flare	NO _x	0.01	0.06
		CO	0.03	0.11
		VOC (5)	41.25	5.16 (5)
		VOC (7)	41.25	10.06 (7)
S-70	Boiler No. 1	PM/PM ₁₀	1.08	4.73
		SO ₂	0.09	0.37
		NO _x	1.45	6.35
		CO	5.08	22.23

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		VOC	0.78	3.42
S-80	Boiler No. 2	PM/PM ₁₀	1.08	4.73
		SO ₂	0.09	0.37
		NO _x	1.45	6.35
		CO	5.08	22.23
		VOC	0.78	3.42
S-90	Emergency Fire Pump	PM/PM ₁₀	0.66	0.03
		SO ₂	0.62	0.03
		NO _x	9.32	0.47
		CO	2.01	0.10
		VOC	0.76	0.04
S-100	Biomethanator Flare	PM/PM ₁₀	0.01	0.01
		SO ₂	0.01	0.01
		NO _x	0.44	1.95
		CO	2.38	10.41
		VOC	0.33	1.45
S-110	Cooling Drum Stack	PM/PM ₁₀	1.20	5.26
		VOC (5)	1.23 (5)	5.37 (5)
		VOC (7)	2.39 (7)	10.47 (7)
S-120	Fermentation (CO ₂) Scrubber	VOC (5)	6.73 (5)	29.5 (5)
F-10	Cooling Tower Cell No.	VOC	0.01	0.04
F-20	1	PM/PM ₁₀	3.12	13.68
F-30	Cooling Tower Cell No.			
F-40	2			
	Cooling Tower Cell No.			
	3			
	Cooling Tower Cell No.			
	4			
F-50	Grain Handling Fugitives	PM (5)	1.47	1.11 (5)
	(4)	PM (7)	1.47	2.17 (7)
		PM ₁₀	0.33	0.48

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F-60	Scalping Fugitives (4)	PM/PM ₁₀ (5)	0.20	0.38 (5)
		PM/PM ₁₀ (7)	0.20	0.74 (7)
F-70	DDGS Storage and Loading Fugitives (4)	PM (5)	0.10	0.01 (5)
		PM (7)	0.10	0.03 (7)
		PM ₁₀	0.02	0.01
F-80	Uncaptured Emissions from Truck/Rail EtOH Loadout	VOC	41.25	10.06
F-90	Equipment Leaks (4)	VOC	0.33	1.44
F-100	Wet Cake Storage / Loadout	VOC (5)	1.25	1.16 (5)
		VOC (7)	1.25	2.27 (7)
MSS_FERM	MSS Fermentation Area Vessels, Piping and Ancillary Equipment	VOC	8.97	0.65
MSS_DSL	MSS Distillation Vessels, Distillation Area, Storage Tank Area and Loading Area Piping and Ancillary Equipment	VOC	5.73	0.06
MSS_TANK	MSS Tank Farm Floating Roof Tank Landings	VOC	95.23	0.51
MSS_PCD	Portable Control Devices for TANK MSS	PM/PM ₁₀ (9)	0.02	0.01
		SO ₂ (9)	0.01	0.01
		NO _x (9)	1.10	0.02
		CO (9)	1.65	0.03
		VOC (9)	0.84	0.01
T-1	200 Proof Storage Tank	VOC (5)	0.24	0.31
		VOC (7)	0.24	0.51
T-2	190 Proof Storage Tank	VOC (5)	0.24	0.30

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T-3	Denaturant Storage Tank	VOC (7)	0.24	0.48
		VOC	0.49	1.35
T-4	Denatured Ethanol Storage Tank No. 1	VOC (5)	0.67	0.23
		VOC (7)	0.67	0.28
T-5	Denatured Ethanol Storage Tank No. 2	VOC (5)	0.67	0.23
		VOC (7)	0.67	0.28
T-6	Corrosion Inhibitor Tank	VOC	0.02	0.59

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (30 TAC § 101.1)

HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10

IOC-U - inorganic compounds (unspeciated)

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}

PM₁₀ - particulate matter equal to or less than 10 microns in diameter

PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

HCl - hydrogen chloride

HF - hydrogen fluoride

HBr - hydrogen bromide

HI - hydrogen iodide

NaOH - sodium hydroxide

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) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) Emission Limits applicable until the plant exceeds 59 million gallons of ethanol production in any 12 month period.

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- (6) Emissions applicable only during maintenance, start-up, and shutdown (MSS) event on a major piece of distillation equipment, the annual limit is the sum for both control devices for this purpose.
- (7) Emission Limits after the plant exceeds 59 million gallons of ethanol production in any 12 month period. The Fermentation (CO₂) Scrubber must vent to the Process Regenerative Thermal Oxidizer at all times after this production rate is reached.
- (8) Emissions for the sources covered in this permit that are not identified as MSS include start-up and shutdown emissions as part of their normal emission limit and control devices include maintenance flows in the limits.
- (9) The portable control devices, TANK_PCD, may be used in lieu of the Ethanol Loadout Flare, S-60, for tank degassing control.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or 8760 Hrs/year

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 14, 2008