

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 19355

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)	<u>Emission Rates</u>	
			lb/hr	TPY
S-001	Corn Receiving System Bag Filter (a)	PM <sub>10</sub>	1.54	1.23
S-002	Corn Storage Bin Filter (a)	PM <sub>10</sub>	0.11	0.09
S-003	Cracked Corn Bin Filter (a)	PM <sub>10</sub>	<0.01	<0.01
S-004	Cracked Corn Loadout Bag Filter (a)	PM <sub>10</sub>	0.30	0.24
S-005	Germ Bin Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-006	Germ Bin Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-007	Germ Loadout Bag Filter (c)	PM <sub>10</sub>	0.30	0.09
S-008	Germ Bin Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-009	Germ Bin Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-010	Gluten Loadout Transfer Bag Filter (d)	PM <sub>10</sub>	0.10	0.08
S-011	Gluten Loadout Bag Filter (d)	PM <sub>10</sub>	0.30	0.23
S-105	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC	0.20	0.88

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			lb/hr	TPY
S-106	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-107	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-108	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-109	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-110	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-111	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-112	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-113	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-114	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-115	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-116	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-117	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC 0.20	0.88	
S-118	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
		VOC	0.20	0.88
S-119	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC	0.20	0.88
S-120	Corn Steeping Tank (b)	SO <sub>2</sub>	0.02	0.09
		VOC	0.20	0.88
S-127	Starch Reslurry Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-128	Starch Dryer Wet Cyclone Vent (b)	VOC	0.10	0.44
		NO <sub>x</sub>	1.84	8.06
		SO <sub>2</sub>	0.14	0.61
		PM <sub>10</sub>	7.20	31.54
		CO	1.54	6.75
S-132	No. 1 CAB Filtrate Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.02	0.09
S-133	No. 2 CAB Filtrate Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.02	0.09
S-134	North Incubation Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.07	0.31
S-135	South Incubation Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.07	0.31
S-136	West Incubation Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.07	0.31
S-137	1 <sup>st</sup> Grind Dilution Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.07	0.31

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
S-150	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.32	1.42	
S-152	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-153	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-154	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-155	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-156	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-157	Corn Steeping Tank (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.50	2.19	
S-158	No. 1 Germ Dryer Stack (b)	PM <sub>10</sub>	0.46	2.01
		SO <sub>2</sub> 0.90	3.94	
		VOC 1.07	4.69	
S-159	No. 2 Germ Dryer Stack (b)	PM <sub>10</sub>	0.93	4.07
		SO <sub>2</sub> 1.80	7.88	
		VOC 2.14	9.37	
S-160	Germ Transfer Bag Filter (b)	PM <sub>10</sub>	0.90	3.94
S-161	Gluten Recycle Bag Filter (b)	PM <sub>10</sub>	0.09	0.39
S-162	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.01	0.05
		VOC 0.04	0.19	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
S-163	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.01	0.05
		VOC 0.04	0.19	
S-164	Gluten Dryer Scrubber Stack (b)	VOC	19.37	84.84
		NO <sub>x</sub>	3.70	16.21
		SO <sub>2</sub>	7.00	30.66
		PM <sub>10</sub>	11.75	51.47
		CO	3.11	13.62
S-165	Gluten Transfer Bag Filter (b)	PM <sub>10</sub>	0.56	2.45
S-166	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.04	0.17
		VOC 0.16	0.68	
S-167	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.19	0.85	
S-168	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.05	0.22
		VOC 0.19	0.85	
S-169	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.35
		VOC 0.24	1.06	
S-170	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.04	0.18
		VOC 0.17	0.75	
S-172	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.24	1.05	
S-173	North Gluten Filter Vent Fan (b)	SO <sub>2</sub>	0.48	2.10
		VOC	2.37	10.40
S-174	Center Gluten Filter Vent Fan (b)	SO <sub>2</sub>	0.48	2.10
		VOC	2.37	10.40
S-175	South Gluten Filter Vent	SO <sub>2</sub>	0.48	2.10

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			lb/hr	TPY
	Fan (b)	VOC	2.37	10.40
S-176	Sluice Line Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-177	Starch Dewatering Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-178	South Flotation Cell Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-179	North Flotation Cell Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-180	Primary Separator Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-181	Grind Tanks Vent Fan (b)	SO <sub>2</sub>	1.46	6.40
		VOC 0.15	0.66	
S-182	Steepwater Evaporator Condenser Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.18	0.80
S-183	Gluten Filter Vacuum Pump Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC	0.09	0.40
S-184	Sluice Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
		VOC 0.02	0.10	
S-185	Water Fill Tank Vent (b)	SO <sub>2</sub>	0.01	0.04
S-186	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.30	1.35	
S-187	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.30	1.35	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
S-188	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.30	1.35	
S-189	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.30	1.35	
S-190	Mill Building Vent Fan (b)	SO <sub>2</sub>	0.08	0.36
		VOC 0.30	1.35	
S-205	Starch Bin I Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-301	Diatomaceous Earth Bin Bag Filter (b)	PM <sub>10</sub>	0.01	0.04
S-302	Diatomaceous Earth Transfer Bag Filter (b)	PM <sub>10</sub>	0.13	0.57
S-304	Carbon Regeneration Furnace Scrubber Stack (b)	VOC	0.03	0.13
		NO <sub>x</sub>	4.50	19.75
		SO <sub>2</sub>	0.02	0.09
		PM <sub>10</sub>	0.70	3.07
		CO	0.95	4.16
S-307	Mg Sulfite Tank Scrubber (b)	SO <sub>2</sub>	0.02	0.10
S-308	HCl Scrubber (b)	HCl	0.11	0.48
S-309	NH <sub>3</sub> Scrubber (b)	NH <sub>3</sub>	0.06	0.26
S-310	Lime Silo Bag Filter (b)	PM <sub>10</sub>	0.06	0.26
S-311	Flash Cooler Vent (b)	SO <sub>2</sub>	9.13	40.00
		VOC 0.46	2.01	
S-312	Flash Cooler Vent (b)	SO <sub>2</sub>	9.13	40.00

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY
		VOC	0.46	2.01
S-402	Millhouse Cooling Tower (b)	PM	0.02	0.11
		VOC	0.01	0.04
S-403	55 Refinery Cooling Tower (b)	PM	0.10	0.44
		VOC	0.01	0.04
S-404	Bisulfite Solution Scrubber (b)	SO <sub>2</sub>	0.03	0.13
S-405	No. 2 Fuel Oil Tank (b)	VOC	0.01	0.04
S-406	Murray Boiler (b) (e) [Natural Gas] (81 MMBtu/hr)	VOC	0.45	1.97
		NO <sub>x</sub>	8.10	35.48
		SO <sub>2</sub>	0.05	0.22
		PM <sub>10</sub>	0.62	2.72
		CO	6.80	29.78
S-407	B and W Boiler (b) (e) [Natural Gas] (135 MMBtu/hr)	VOC	0.74	3.24
		NO <sub>x</sub>	18.90	82.78
		SO <sub>2</sub>	0.08	0.35
		PM <sub>10</sub>	1.03	4.51
		CO	11.34	49.67
S-408	Zurn Boiler (b) (e) [Natural Gas] (91.8 MMBtu/hr)	VOC	0.50	2.19
		NO <sub>x</sub>	10.56	46.25
		SO <sub>2</sub>	0.06	0.26
		PM <sub>10</sub>	0.70	3.07
		CO	7.71	33.77
S-409	42 Refinery Cooling Tower (b)	PM	0.11	0.50
		VOC	0.01	0.04
S-410	Demin. Aeration Tower (b)	VOC	0.01	0.04
F-101	Bran By-Product Handling (b)	PM <sub>10</sub>	0.06	0.26
		SO <sub>2</sub>	0.02	0.10



		VOC	0.02	0.10	
F-102	Millhouse Fugitives (b)	SO <sub>2</sub>	0.01	0.04	
		VOC	0.05	0.22	
F-103	Steepwater Unloading Fugitives (b)	SO <sub>2</sub>	0.01	0.04	
		VOC	0.05	0.22	
F-201	Starch Loadout (b)	PM <sub>10</sub>	1.37	6.00	
F-301	Carbon Regeneration Furnace Area (b)	PM <sub>10</sub>	0.05	0.22	
F-302	Diatomaceous Earth Handling Area (b)	PM <sub>10</sub>	0.25	1.10	
F-401	Fuel Oil Handling (b)	VOC	0.15	0.66	
F-402	Propane Storage Area (b)	VOC	0.57	2.50	

- (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 area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>.  
PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (30 TAC § 101.1)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
CO - carbon monoxide  
NH<sub>3</sub> - ammonia  
HCl - hydrogen chloride

- (a) Emission rates are based on the following maximum operating schedule:

Hrs/day\_\_\_\_ Days/week\_\_\_\_ Weeks/year\_\_\_\_ or Hrs/year 1,600

- (b) Emission rates are based on the following operating schedule:

Hrs/day\_\_\_\_ Days/week\_\_\_\_ Weeks/year\_\_\_\_ or Hrs/year 8,760

- (c) Emission rates are based on the following maximum operating schedule:

Hrs/day\_\_\_\_ Days/week\_\_\_\_ Weeks/year\_\_\_\_ or Hrs/year 600

- (d) Emission rates are based on the following maximum operating schedule:

Hrs/day\_\_\_\_ Days/week\_\_\_\_ Weeks/year\_\_\_\_ or Hrs/year 1,500

- (e) Emission rates are based on firing sweet natural gas as defined in 30 TAC Chapter 101.

Dated June 30, 2004