Emission Sources - Maximum Allowable Emission Rates

Permit Number 8221A

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 (7)	
			lbs/hour	TPY
2	Bean Trash Receiving Cyclone Stack	PM	2.09	0.10
		PM_{10}	1.77	0.09
5	Bean Cleaner Baghouse Stack (6)	PM	0.17	< 0.01
		PM_{10}	0.17	< 0.01
7A	T-820s Splits Transfer Out Baghouse Stack (6)	PM	0.03	0.04
		PM_{10}	0.03	0.04
7B	T-820s Splits Transfer Out Baghouse Stack (6)	PM	0.03	0.04
		PM_{10}	0.03	0.04
8	T-820s Splits Transfer Out Baghouse Stack (6)	PM	0.16	0.28
		PM_{10}	0.16	0.28
9	Splits Railcar Unloading Baghouse Stack (6)	PM	0.03	0.06
		PM_{10}	0.03	0.06
10	Bean Trash Screw Baghouse Stack (6)	PM	0.28	0.01
		PM_{10}	0.28	0.01
12	Meal Storage Tank Baghouse Stack (6)	PM	0.34	0.51
		PM_{10}	0.34	0.51
13	Meal Storage Tanks Baghouse Stack (6)	PM	0.34	0.51
		PM_{10}	0.34	0.51
14	Meal Bulk Loading Baghouse Stack (6)	PM	1.48	1.11
		PM_{10}	1.48	1.11
21	Bean Transfer Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
22	TK 1-4 Baghouse	PM	0.03	0.06

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	Stack (6)	PM_{10}	0.03	0.06
23	TPS Bean Cleaner Baghouse Stack (6)	PM	0.07	0.04
		PM_{10}	0.07	0.04
24	TK 1-4 Tunnel Baghouse Stack (6)	PM	0.10	0.23
		PM_{10}	0.10	0.23
25	TK 13-14 Outlet Baghouse Stack (6)	PM	0.13	0.20
		PM_{10}	0.13	0.20
29	Purified Splits PR Dust Collector (6)	PM	0.03	0.13
		PM_{10}	0.03	0.13
30	Pre-Secondary Sifter Dust Collector (6)	PM	0.28	1.15
		PM_{10}	0.28	1.15
31	Rotary Furnace Cyclone Stack	PM	0.16	0.28
		PM_{10}	0.14	0.25
		SO_2	0.09	0.17
		NO_x	0.65	1.14
		CO	0.55	0.96
		VOC	0.04	0.06
36	Secondary Screw Dust Collector (6)	PM	0.05	0.20
		PM_{10}	0.05	0.20
37	Product Bagging Dust Collector (6)	PM	0.17	0.04
		PM_{10}	0.17	0.04
38	Dump Back Dust Collector (6)	PM	0.09	0.07
		PM_{10}	0.09	0.07
39	Pre-Primary Sifter PR Cyclone (6)	PM	0.90	3.04
		PM_{10}	0.77	2.58
47	TK 809A, B Foersberg Dump Scale Baghouse Stack (6)	PM	0.09	0.18
		PM_{10}	0.09	0.18
49A	TK No. 811A Baghouse Stack (6)	PM	0.07	0.07
		PM_{10}	0.07	0.07
49B	TK No. 811B Baghouse Stack (6)	PM	0.07	0.07
		PM_{10}	0.07	0.07
54	TK No. 809A	PM	0.03	0.07

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	Baghouse Stack (6)	PM_{10}	0.03	0.07
55	TK No. 809B Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
56	TK No. 801A Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
57	TK No. 801B Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
58	TK No. 801X Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
59	TK No. 801Y Baghouse Stack (6)	PM	0.03	0.07
		PM_{10}	0.03	0.07
60	M2 7E Blowers (Food Grade) Cyclone Stack [Furnace]	PM	0.95	3.94
		PM_{10}	0.81	3.38
		SO_2	0.11	0.49
		NO_x	0.76	3.35
		CO	0.64	2.81
		VOC	0.04	0.18
61	M2 Secondary Sifter Baghouse Stack (6)	PM	0.44	1.84
		PM_{10}	0.44	1.84
63A	M2 Hydration Conveyor Hood	VOC (Acetic Acid)	0.15	0.61
64	Stnd. Guar Splits Surge Tank Baghouse Stack (6)	PM	0.04	0.06
		PM_{10}	0.04	0.06
67	M-2 Fin. Product Baghouse Stack (6)	PM	0.36	1.17
		PM_{10}	0.36	1.17
70	901, 902, 903 Splits HB Baghouse Stack (6)	PM	0.15	0.66
		PM_{10}	0.15	0.66
72	Scrubber Vent	VOC (4)	--	--
87	903 Flame Arrestor Service 902 and 903 Reactor Vents	VOC (4)	--	--
88	902 Flame Arrestor on Recycle Conveyor	VOC (4)	--	--

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	Reactor Vents			
89	901 Flame Arrestor on Recycle Conveyor Reactor Vents	VOC (4)	--	--
92	Reactors Vac Jet Blowdown Pot	VOC (4)	--	--
PP-3	Pilot Plant VOC Vent	VOC (4)	--	--
	Total Reactor Operations	VOC (4)	5.33	5.07
80	Splits Receiving Before 902s and 903s Baghouse Stack (6)	PM	0.05	0.14
		PM_{10}	0.05	0.14
81	Splits Rec Before M-1 and M-2 Baghouse Stack (6)	PM	0.09	0.14
		PM_{10}	0.09	0.14
82	Splits Receiver for Milling 1 and 2 Baghouse Stack (6)	PM	0.09	0.14
		PM_{10}	0.09	0.14
124	Mill1 Product Receiving (Presifted) Baghouse Stack [Furnace] (6)	PM	0.58	0.77
		PM_{10}	0.58	0.77
		SO_2	0.11	0.49
		NO_x	0.76	3.35
		CO	0.64	2.81
		VOC	0.04	0.18
127	Mill 1 Product Receiving (Sifted) Baghouse Stack (6)	PM	0.06	0.06
		PM_{10}	0.06	0.06
128	Mill 1 Hydration Conveyor Fume Hood	VOC (Acetic Acid)	0.48	1.94
131	Mill 4A Product Receiving Cyclone Stack [Furnace]	PM	1.59	6.59
		PM_{10}	1.36	5.62
		SO_2	0.06	0.26
		NO_x	0.41	1.79
		CO	0.34	1.50
		VOC	0.04	0.11
132	Mill 4B Product	PM	1.88	7.79

Emission Sources – Maximum Allowable Emission Rates

	Receiving Cyclone Stack [Furnace]	PM_{10}	1.61	6.64
		SO_2	0.06	0.26
		NO_x	0.41	1.79
		CO	0.34	1.50
		VOC	0.04	0.11
133	Mill 4D Product Receiving Cyclone Stack [Furnace]	PM	1.31	5.40
		PM_{10}	1.12	4.61
		SO_2	0.06	0.26
		NO_x	0.41	1.79
		CO	0.34	1.50
		VOC	0.04	0.11
134	Mill 4C Product Receiving Cyclone Stack [Furnace]	PM	1.59	6.59
		PM_{10}	1.36	5.62
		SO_2	0.06	0.26
		NO_x	0.41	1.79
		CO	0.34	1.50
		VOC	0.04	0.11
135	Mill 4 Side A Sifter Baghouse Stack (6)	PM	0.05	0.21
		PM_{10}	0.05	0.21
136	Mill 4 Side B Sifter Baghouse Stack (6)	PM	0.05	0.21
		PM_{10}	0.05	0.21
137	Mill 4 Side A Product Receiving Baghouse Stack (6)	PM	0.02	0.09
		PM_{10}	0.02	0.09
138	Mill 4 Side B Product Receiving Baghouse Stack (6)	PM	0.02	0.09
		PM_{10}	0.02	0.09
139A	Mill 4 Product Receiving Cyclone Stack	PM	0.08	0.34
		PM_{10}	0.07	0.29
139B	Mill 4 Product Receiving Cyclone Stack	PM	0.08	0.34
		PM_{10}	0.07	0.29
140	Old Bulk 10K Headbin Baghouse Stack (Food Grade) (6)	PM	0.18	0.18
		PM_{10}	0.18	0.18

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141	Food Grade 40K Storage Tank Baghouse Stack (6)	PM	0.18	0.18
		PM_{10}	0.18	0.18
143	Old Bulk 20K Blender Baghouse Stack (6)	PM	0.18	0.18
		PM_{10}	0.18	0.18
145	89 Blender Baghouse Stack (6)	PM	0.77	0.39
		PM_{10}	0.77	0.39
146A	Old Bulk Bagging Station 20K Blender Baghouse Stack (6)	PM	0.28	0.28
		PM_{10}	0.28	0.28
146B	Old Bulk Bagging Station 20K Blender Baghouse Stack (6)	PM	0.28	0.28
		PM_{10}	0.28	0.28
152	Old Bulk Dump Back Station Baghouse Stack (6)	PM	0.26	0.13
		PM_{10}	0.26	0.13
153	Food Grade 40K Storage Tank Baghouse Stack (6)	PM	0.18	0.18
		PM_{10}	0.18	0.18
154	C Section Blender Baghouse Stack (6)	PM	0.28	0.28
		PM_{10}	0.28	0.28
155	Food Grade 10K Blender Baghouse Stack (6)	PM	0.18	0.22
		PM_{10}	0.18	0.22
157A	Dry Enzyme Dump Station Baghouse Stack (6)	PM	0.10	0.05
		PM_{10}	0.10	0.05
157B	Dry Enzyme Dump Station Baghouse Stack (6)	PM	0.07	0.03
		PM_{10}	0.07	0.03
158	Food Grade Dump Back Station Baghouse Stack (6)	PM	0.10	0.10
		PM_{10}	0.10	0.10
160	Bulk 1 10K Weighbin Baghouse Stack (6)	PM	0.66	2.64
		PM_{10}	0.66	2.64
161	Bulk 1 10K Blender Baghouse Stack (6)	PM	0.08	0.37
		PM_{10}	0.08	0.37
162	Bulk 1 20K Blender Baghouse Stack (6)	PM	0.07	0.31

Emission Sources – Maximum Allowable Emission Rates

		PM_{10}	0.07	0.31
164	Bulk 1 Offline Bagging Baghouse Stack (6)	PM	0.24	0.54
		PM_{10}	0.24	0.54
165	Bulk 1 Tank 1 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
166	Bulk 1 Tank 2 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
167	Bulk 1 Tank 3 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
168	Bulk 1 Tank 4 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
169	Bulk 1 Tank 5 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
170	Bulk 1 Tank 6 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
171	Bulk 1 Tank 7 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
172	Bulk 1 Tank 8 Baghouse Stack (6)	PM	0.12	0.06
		PM_{10}	0.12	0.06
173	Bulk 1 Dump Back Station Baghouse Stack (6)	PM	0.08	0.32
		PM_{10}	0.08	0.32
176	Bulk 1 Vacuum System Baghouse Stack (6)	PM	0.03	0.10
		PM_{10}	0.03	0.10
180A	Bulk 2 10K Weighbin Baghouse Stack (6)	PM	0.05	0.19
		PM_{10}	0.05	0.19
180B	Bulk 2 10K Weighbin Baghouse Stack (6)	PM	0.05	0.19
		PM_{10}	0.05	0.19
181	Bulk 2 10K Blender Baghouse Stack (6)	PM	0.07	0.31
		PM_{10}	0.07	0.31
		VOC (Acetic Acid)	15.00	2.73

Emission Sources – Maximum Allowable Emission Rates

182	Bulk 2 Vacuum System Baghouse Stack (6)	PM	0.01	0.06
		PM_{10}	0.01	0.06
183	Bulk 3 Vacuum System Baghouse Stack (6)	PM	0.01	0.06
		PM_{10}	0.01	0.06
184	Bulk 2 Offline Bagging East Baghouse Stack (6)	PM	0.24	0.97
		PM_{10}	0.24	0.97
186	Bulk 2 Offline Bagging East Baghouse Stack (6)	PM	0.43	1.75
		PM_{10}	0.43	1.75
188	Bulk 2 Dump Back Station Baghouse Stack (6)	PM	0.22	0.22
		PM_{10}	0.22	0.22
189	Bulk 2 Tank 16 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
190	Bulk 2 Tank 15 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
191	Bulk 2 Tank 14 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
192	Bulk 2 Tank 13 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
193	Bulk 2 Tank 12 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
194	Bulk 2 Tank 11 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
195	Bulk 2 Tank 10 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
196	Bulk 2 Tank 9 Baghouse Stack (6)	PM	0.24	0.12
		PM_{10}	0.24	0.12
202	Quaternary Amine Storage Tank	VOC (Quaternary Amine)	0.07	< 0.01
203	Boiler No. 3 Stack	PM	0.14	0.61
		PM_{10}	0.14	0.61
		SO_2	0.27	1.16

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		NO_x	1.83	8.01
		CO	1.54	6.73
		VOC	0.10	0.44
204	Boiler No. 2 Stack	PM	0.14	0.61
		PM_{10}	0.14	0.61
		SO_2	0.27	1.16
		NO_x	1.83	8.01
		CO	1.54	6.73
		VOC	0.10	0.44
206	Propane Tank	VOC	0.02	0.09
210	Brine Maker Operation	PM	1.00	0.08
		PM_{10}	1.00	0.08
220	Mill 5 A Product Receiving Cyclone Stack	PM	0.05	0.19
		PM_{10}	0.04	0.16
221	Mill 5 B Product Receiving Cyclone Stack	PM	0.05	0.19
		PM_{10}	0.04	0.16
222	Mill 5 A Product Receiving Cyclone Stack [Furnace]	PM	1.31	5.43
		PM_{10}	1.12	4.64
		SO_2	0.07	0.31
		NO_x	0.49	2.15
		CO	0.41	1.81
		VOC	0.03	0.12
223	Mill 5 B Product Receiving Cyclone Stack [Furnace]	PM	1.31	5.43
		PM_{10}	1.12	4.64
		SO_2	0.07	0.31
		NO_x	0.49	2.15
		CO	0.41	1.81
		VOC	0.03	0.12
224	Mill 5 A Product Receiving Cyclone Stack [Furnace]	PM	1.31	5.43
		PM_{10}	1.12	4.64
		SO_2	0.07	0.31
		NO_x	0.49	2.15

Emission Sources – Maximum Allowable Emission Rates

		CO	0.41	1.81
		VOC	0.03	0.12
225	Mill 5 B Product Receiving Cyclone Stack [Furnace]	PM	1.31	5.43
		PM_{10}	1.12	4.64
		SO_2	0.07	0.31
		NO_x	0.49	2.15
		CO	0.41	1.81
		VOC	0.03	0.12
226	Mill 5 A Sect Recycle Collector Baghouse Stack (6)	PM	0.04	0.16
		PM_{10}	0.04	0.16
227	Mill 5 B Sect Recycle Collector Baghouse Stack (6)	PM	0.04	0.16
		PM_{10}	0.04	0.16
228	Mill 5 A Sect Product Receiver Baghouse Stack (6)	PM	0.02	0.06
		PM_{10}	0.02	0.06
229	Mill 5 B Sect Producer Receiver Baghouse Stack (6)	PM	0.02	0.06
		PM_{10}	0.02	0.06
230	Mill 5 A Regrind Product Collector Baghouse Stack (6)	PM	0.29	0.69
		PM_{10}	0.29	0.69
240	Bulk 3 20K Headbin Baghouse Stack (6)	PM	0.39	1.57
		PM_{10}	0.39	1.57
241	Bulk 3 Bagging Station Baghouse Stack (6)	PM	0.24	0.97
		PM_{10}	0.24	0.97
242	Bulk 3 Bagging Station Baghouse Stack (6)	PM	1.47	5.94
		PM_{10}	1.47	5.94
243	Bulk 3 Air Mix Blender Baghouse Stack (6)	PM	0.38	1.52
		PM_{10}	0.38	1.52
244	Bulk 2 Dry Chem Additive Station Baghouse Vent (6)	PM	0.47	0.83
		PM_{10}	0.47	0.83
245	Granulated Guar Process Baghouse Stack (6)	PM	0.26	0.13
		PM_{10}	0.26	0.13

Emission Sources – Maximum Allowable Emission Rates

254	Cooling Tower C Stack	PM	0.21	0.90
		PM_{10}	0.21	0.90
255	Cooling Tower D Stack	PM	0.17	0.75
		PM_{10}	0.17	0.75
PP-1	Pilot Plant Primary Cyclone Stack	PM	0.04	0.09
		PM_{10}	0.04	0.07
PP-2	Pilot Plant Secondary Cyclone Stack	PM	0.04	0.09
		PM_{10}	0.04	0.07
260	Milling 4 Vacuum System Baghouse Stack (6)	PM	0.03	0.14
		PM_{10}	0.03	0.14
261	Milling 5 Vacuum System Baghouse Stack (6)	PM	0.02	0.08
		PM_{10}	0.02	0.08
FV-101	Prox Equipment Leak Fugitives (5)	VOC	1.12	4.86

(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) CO - carbon monoxide
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
SO_2 - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
(4) All VOC emissions from these sources are propylene oxide, which is a hazardous air pollutant.
(5) Fugitive emissions are an estimate only.
(6) Bag or pleated filter replacement is an authorized maintenance activity. The emissions associated with this maintenance activity are de minimis.
(7) Planned startup and shutdown emissions are included. Maintenance activities except for bag or pleated filter replacements, are not authorized by this permit.

Date: August 10, 2015