Emission Sources - Maximum Allowable Emission Rates

Permit Number 48455

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 (9)	
			lbs/hour	TPY (4)
5F	Bauxite Unloading (E-Cranes No. 1 and 2)(5)	PM	18.33	19.25
		PM_{10}	18.33	19.25
131	Bauxite Transfer Hoppers Nos. 1 and 2 (5)	PM	7.70	6.47
		PM_{10}	7.70	6.47
12	Kiln 8 - ESP Stack	PM	9.79	33.01
		PM_{10}	9.79	33.01
		NO_x	19.00	49.65
		CO	22.00	74.40
		SO_2	0.23	0.78
		VOC	5.00	16.91
		Hg	0.0025	0.008
		HF	0.10	0.23
		PM (8)	35.60	0.14
		PM_{10} (8)	35.60	0.14
13	Facility 51 - Alumina Conveyor Baghouse	PM	1.63	7.14
		PM_{10}	1.63	7.14
14	Facility 51 - Alumina Conveyor Baghouse	PM	1.63	7.14
		PM_{10}	1.63	7.14
14F	Dock Conveyor (5)	PM	15.40	12.94
		PM_{10}	15.40	12.94

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29	Kiln 9 - ESP Stack	PM	9.76	10.54
		PM_{10}	9.76	10.54
		NO_x	9.64	10.41
		CO	22.00	23.76
		SO_2	0.23	0.25
		VOC	5.00	5.40
		Hg	0.0025	0.003
		PM (8)	19.00	0.08
		PM_{10} (8)	19.00	0.08
30	South Railroad Track Baghouse Stack	PM	1.63	7.14
		PM_{10}	1.63	7.14
32	Kiln 1 - Hydrate Dryer - ESP Stack	PM	5.00	21.90
		PM_{10}	5.00	21.90
		NO_x	1.00	4.38
		CO	0.50	2.19
		SO_2	0.04	0.14
		VOC	2.20	4.69
		Hg	0.0008	0.003
		PM (8)	20.10	0.18
		PM_{10} (8)	20.10	0.18
34	Alumina Rail Unloading Conveyor - Tunnel Baghouse Stack	PM	1.46	6.38
		PM_{10}	1.46	6.38
		$PM_{2.5}$	0.48	2.11
90DC1	Alumina Ship Loader Tunnel Air Gravity Conveyors (AGC) Cartridge Filter DC1 Stack	PM	0.47	2.06
		PM_{10}	0.47	2.06
		$PM_{2.5}$	0.16	0.68

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90DC2	Elevator Tower – Grade Level Cartridge Filter DC2 Stack	PM	0.60	2.63
		PM_{10}	0.60	2.63
		$PM_{2.5}$	0.20	0.87
90DC5	Elevator Tower – Top Level Cartridge Filter DC5 Stack	PM	0.44	1.91
		PM_{10}	0.44	1.91
		$PM_{2.5}$	0.14	0.63
90DC3A	Ship Loader Feed AGC Cartridge Filter DC3A Stack	PM	0.18	0.79
		PM_{10}	0.18	0.79
		$PM_{2.5}$	0.06	0.26
90DC3B	Ship Loader Feed AGC Cartridge Filter DC3B Stack	PM	0.18	0.79
		PM_{10}	0.18	0.79
		$PM_{2.5}$	0.06	0.26
90DC3C	Ship Loader Feed AGC Cartridge Filter DC3C Stack	PM	0.18	0.79
		PM_{10}	0.18	0.79
		$PM_{2.5}$	0.06	0.26
90DC6A	Ship Loading Boom Cartridge Filter DC6A Stack	PM	0.32	1.41
		PM_{10}	0.32	1.41
		$PM_{2.5}$	0.11	0.47
90DC6B	Ship Loading Boom Cartridge Filter DC6B Stack	PM	0.32	1.41
		PM_{10}	0.32	1.41
		$PM_{2.5}$	0.11	0.47
90F	90 Silo Fugitives (5)	PM	0.73	3.17
		PM_{10}	0.73	3.17
91F	Alumina Loading (Marine Terminal) (5)	PM	55.20	38.38
		PM_{10}	55.20	38.38
92	90 1-1 Silo Dust Collector	PM	0.43	0.94

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		PM_{10}	0.43	0.94
93	90 2-1 Silo Dust Collector	PM	0.43	0.94
		PM_{10}	0.43	0.94
94	90 2-2 Silo Dust Collector	PM	0.43	0.94
		PM_{10}	0.43	0.94
95	90 3-1 Silo Dust Collector	PM	0.43	1.88
		PM_{10}	0.43	1.88
96	90 3-2 Silo Dust Collector	PM	0.43	1.88
		PM_{10}	0.43	1.88
97	90 3-3 Silo Dust Collector	PM	0.43	1.88
		PM_{10}	0.43	1.88
98	90 3-4 Silo Dust Collector	PM	0.43	1.88
		PM_{10}	0.43	1.88
100A	Lime Silo 1 Vent Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
100B	Lime Silo 2 Vent Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
101	No. 1 Lime Slaker Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
102	No. 2 Lime Slaker Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
109	Belt Feeding Calciner No. 1 (5) (6)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
110	Belt Feeding Calciner No. 2 (5) (6)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
111	Scale Conveyor (5) (7)	PM	<0.01	<0.01

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		PM_{10}	<0.01	<0.01
112	Conveyor Feeding Kiln No. 8 (5) (6)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
113	Conveyor Feeding Kiln No. 9 (5) (6)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
132	Digestors 1 & 2	Hg	0.0114	0.0499
133	Digestors 3 & 4	Hg	0.0114	0.0499
134	Digestor 5	Hg	0.0057	0.025
135	Rod Mills (5)	Hg	0.0154	0.1457
136	Desilicators (5)	Hg	0.0093	0.1457
137	Clarification (5)	Hg	0.0071	0.1457
138	Small Evaporators (5)	Hg	0.0015	0.1457
135, 136, 137, and 138	Total F_PlantS Operations (5)	Hg	--	0.1457
139	Large Evaporators (5)	Hg	0.0036	0.199
140	Torque Thickeners (5)	Hg	0.009	0.199
141	Precipitation (5)	Hg	0.0124	0.199
142	Hydrate Filters (5)	Hg	0.0203	0.199
139, 140, 141, and 142	Total F_PlantN Operations (5)	Hg	--	0.199

(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

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Hg - mercury
HF - hydrogen fluoride

(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) Minimal emissions due to 8 to 10 percent moisture in the material during normal operations.
(7) Minimal emissions because the material contains 10 to 15 percent free liquors entrained in the matrix.
(8) Emissions associated with startup and shutdown activities.
(9) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit and will require separate authorization, unless the activity can meet the conditions of 30 TAC § 116.119.

Date: January 27, 2015