Emission Sources - Maximum Allowable Emission Rates

Permit Number 1

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)
5-6S	Cement Railcar Gathering Screw Conveyor 1, 2, and 3 Baghouse	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13
1-2A	Quarry Belt No. 5 Baghouse	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38
1-2B	Quarry Belt No. 4 Baghouse	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38
1-2C	Quarry Belt No. 3 Baghouse	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38
1-2E1	Stamler Discharge Belt (5)	PM	0.06	0.09
		PM_{10}	0.03	0.04
		$PM_{2.5}$	<0.01	0.01
1-2F	No. 7 Quarry Belt Dust Collector	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38
1-9A_1-9B	Iron Source Stockpile with Truck Unloading (5)	PM	0.05	0.20
		PM_{10}	0.02	0.10
		$PM_{2.5}$	<0.01	0.02
1-10	Iron Source Hopper (5)	PM	0.05	0.02
		PM_{10}	0.03	0.01
		$PM_{2.5}$	<0.01	<0.01
1-11A	Iron Source Conveyor 1 (5)	PM	0.05	0.02
		PM_{10}	0.03	0.01
		$PM_{2.5}$	<0.01	<0.01
1-11B	Iron Source Conveyor 1 (5)	PM	0.05	0.02
		PM_{10}	0.03	0.01

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	<0.01	<0.01
1-12	Iron Source Handling Baghouse	PM	0.43	1.88
		PM_{10}	0.43	1.88
		$PM_{2.5}$	0.14	0.63
1-16A1	Iron Source Silo 3 to Iron Source Silo 3 Weigh Belt	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1-16A2	Iron Source Silo 3 Weigh Belt to Iron Source Drag Conveyor	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
444.DC2	Iron Source Drag Conveyor to Kiln Riser	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1-18	Quarry Fixed Conveyor No. 3 Baghouse	PM	0.27	1.20
		PM_{10}	0.27	1.20
		$PM_{2.5}$	0.09	0.40
1-19	Limestone Day Tank and Quarry Conveyor No. 1 Baghouse	PM	0.27	1.20
		PM_{10}	0.27	1.20
		$PM_{2.5}$	0.09	0.40
1-20	Limestone Belts 2A (5)	PM	0.02	0.06
		PM_{10}	0.01	0.03
		$PM_{2.5}$	<0.01	<0.01
1-22	Limestone Belts 3A (5)	PM	0.02	0.06
		PM_{10}	0.01	0.03
		$PM_{2.5}$	<0.01	<0.01
1-24, 1-24A, and 1-24B	Stamler Feeder (5)	PM	0.96	1.50
		PM_{10}	0.43	0.68
		$PM_{2.5}$	0.04	0.06
1-21	Limestone Belt No. 2 Baghouse	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13
1-23	Limestone Belt No. 3 Baghouse	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13
1-25	Roll Crusher and Quarry Belt No. 6 Baghouse	PM	0.51	2.25
		PM_{10}	0.51	2.25

Emission Sources - Maximum Allowable Emission Rates

2-6A	CKD Pugmill (5)	PM	0.09	0.13
		PM_{10}	0.04	0.06
		$PM_{2.5}$	0.01	0.01
2-6B	CKD Pugmill (5)	PM	0.01	0.02
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
3-15	Clinker Reclaim Conveyor No. 6 Baghouse	PM	0.17	0.75
		PM_{10}	0.17	0.75
		$PM_{2.5}$	0.06	0.25
5-2A	Silo No. 3 Baghouse	PM	0.81	3.54
		PM_{10}	0.81	3.54
		$PM_{2.5}$	0.27	1.18
27	Clinker Stacker and Stacking Operations Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.04	0.19
F-CSB	Clinker Storage Building (5)	PM	0.01	0.04
		PM_{10}	<0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
F-MB1	Main Bldg Fug (5)	PM	0.10	0.44
		PM_{10}	0.05	0.21
		$PM_{2.5}$	0.01	0.03
F-MB1A	Main Bldg Fug (No. 1 and 2 Raw Mill Conveyors) (5)	PM	0.04	0.13
		PM_{10}	0.02	0.06
		$PM_{2.5}$	<0.01	0.01
26	Finish Mill Collection Belt 1 C-26 Dust Collector (5)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
6-1	Railcar Unloading Hopper (5)	PM	0.04	0.06
		PM_{10}	0.02	0.03
		$PM_{2.5}$	<0.01	<0.01
6-2	Drop from Conveyor to Stack Conveyor (5)	PM	0.07	0.07
		PM_{10}	0.03	0.03
		$PM_{2.5}$	<0.01	0.01
6-3, 6-4A, 6-4B, 6-4C, and 6-4D	Solid Fuel Stockpile with Material Transfer and Movement (5)	PM	0.36	1.56
		PM_{10}	0.18	0.78
		$PM_{2.5}$	0.03	0.12

Emission Sources - Maximum Allowable Emission Rates

	Hopper (5)	PM_{10}	0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
6-5B	West Transfer from Stockpile to Reclaim Hopper (5)	PM	0.01	0.04
		PM_{10}	0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
6-6A	East Drop from Reclaim Hopper to Conveyor (5)	PM	0.01	0.02
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
6-6B	West Drop from Reclaim Hopper to Conveyor (5)	PM	0.01	0.02
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
6-6C	East Drop from Hopper Conveyor to Conveyor Crusher (5)	PM	0.01	0.04
		PM_{10}	0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
6-6D	West Drop from Hopper Conveyor to Conveyor Crusher (5)	PM	0.01	0.04
		PM_{10}	0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
6-6E, 6-7, and 6-8	Coal Crusher and Drops (5)	PM	0.18	0.52
		PM_{10}	0.08	0.24
		$PM_{2.5}$	0.01	0.02
6-9	Drop to Day Tank (5)	PM	0.02	0.05
		PM_{10}	0.01	0.02
		$PM_{2.5}$	<0.01	<0.01
6-10	Solid Fuel Day Tank Conveyor Transfer Points (5)	PM	<0.01	0.02
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
23	Railcar Unloading Baghouse	PM	0.51	2.25
		PM_{10}	0.51	2.25
		$PM_{2.5}$	0.17	0.75
32	CKD Tank 1 Baghouse	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38
33	CKD Tank 2 Baghouse	PM	0.26	1.13
		PM_{10}	0.26	1.13
		$PM_{2.5}$	0.09	0.38

Emission Sources - Maximum Allowable Emission Rates

4	Clinker Elevator 1, Silos 1 and 2 Baghouse	PM	0.69	3.00
		PM_{10}	0.69	3.00
		$PM_{2.5}$	0.23	1.00
8	Clinker Elevator 2, Silos 21 and 22 Baghouse	PM	0.69	3.00
		PM_{10}	0.69	3.00
		$PM_{2.5}$	0.23	1.00
30	Finish Mill Collection Belt 1 Baghouse	PM	0.16	0.70
		PM_{10}	0.16	0.70
		$PM_{2.5}$	0.05	0.23
28	Finish Mill Collection Belt 2 Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.04	0.19
29	Finish Mill Collection Belt 2 C-29 Baghouse	PM	0.17	0.75
		PM_{10}	0.17	0.75
		$PM_{2.5}$	0.06	0.25
5-M	Mill Sweep 1 Baghouse Stack	PM	1.03	4.51
		PM_{10}	1.03	4.51
		$PM_{2.5}$	0.34	1.50
9-M	Mill Sweep 2 Baghouse Stack	PM	1.03	4.51
		PM_{10}	1.03	4.51
		$PM_{2.5}$	0.34	1.50
5-M and 9-M	Mill Sweep Baghouse Stacks	VOC	0.51	2.24
5-C	Classifier Separator 1 Baghouse Stack	PM	2.06	9.01
		PM_{10}	2.06	9.01
		$PM_{2.5}$	0.69	3.00
9-C	Classifier Separator 2 Baghouse Stack	PM	2.06	9.01
		PM_{10}	2.06	9.01
		$PM_{2.5}$	0.69	3.00
10	Cement Silo 1 Baghouse	PM	0.95	4.14
		PM_{10}	0.95	4.14
		$PM_{2.5}$	0.32	1.38
11	Cement Silo 2 Baghouse	PM	0.95	4.14
		PM_{10}	0.95	4.14
		$PM_{2.5}$	0.32	1.38
24	Cement Loading (Rail) Baghouse	PM	0.17	0.75
		PM_{10}	0.17	0.75

Emission Sources - Maximum Allowable Emission Rates

25	Cement Loading (Truck) Baghouse	PM	0.17	0.75
		PM_{10}	0.17	0.75
		$PM_{2.5}$	0.06	0.25
35	Cement Loading (Special) Baghouse	PM	0.17	0.75
		PM_{10}	0.17	0.75
		$PM_{2.5}$	0.06	0.25
1-6A	Purchase Material Outside Hopper (5)	PM	0.23	0.58
		PM_{10}	0.11	0.28
		$PM_{2.5}$	0.02	0.04
1-6A1	Purchase Material Incline Conveyor 1 (5)	PM	0.03	0.09
		PM_{10}	0.02	0.04
		$PM_{2.5}$	<0.01	0.01
1-6B1	Purchase Material Incline Conveyor 1 (5)	PM	0.03	0.09
		PM_{10}	0.02	0.04
		$PM_{2.5}$	<0.01	0.01
1-6B	Purchase Material Storage Belt (5)	PM	0.03	0.09
		PM_{10}	0.02	0.04
		$PM_{2.5}$	<0.01	0.01
F-RM1	Raw Material Bldg (5)	PM	0.07	0.14
		PM_{10}	0.03	0.06
		$PM_{2.5}$	<0.01	0.01
F-RM2	Raw Material Bldg (5)	PM	0.08	0.29
		PM_{10}	0.04	0.14
		$PM_{2.5}$	0.01	0.02
2-7A, 2-7B, and 2-7C	Cement Kiln Dust Handling and Disposal (5)	PM	1.10	4.82
		PM_{10}	0.55	2.41
		$PM_{2.5}$	0.08	0.36
3-4D1 and 3-4E1	Transfer to Clinker Elevators 1 and 2 (5)	PM	1.54	5.62
		PM_{10}	0.73	2.66
		$PM_{2.5}$	0.11	0.40
1-6C	Gypsum Silo 1 Baghouse	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.04	0.19
1-6D	Gypsum Silo 2 Baghouse	PM	0.13	0.57
		PM_{10}	0.13	0.57
		$PM_{2.5}$	0.04	0.19

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.07	0.30
		$PM_{2.5}$	0.01	0.05
1-8A and 1-8B	Gypsum Stockpile with truck unloading (5)	PM	0.41	1.81
		PM_{10}	0.21	0.90
		$PM_{2.5}$	0.03	0.14
3-10 and 3-10A	Outdoor Clinker Stockpile with unloading (5)	PM	0.28	1.20
		PM_{10}	0.14	0.60
		$PM_{2.5}$	0.02	0.09
443.SK1	Reconstructed No. 3 Cement Kiln, Dryer/Crusher, Precalciner, Preheater Cyclone, and Precalciner Cyclone	PM (filterable)	2.60	9.49
		PM (total)	45.83	167.29
		PM_{10} (filterable)	2.18	7.97
		PM_{10} (total)	45.42	165.77
		$PM_{2.5}$ (filterable)	1.17	4.27
		$PM_{2.5}$ (total)	44.40	162.07
		SO_2	1650.00	189.80
		NO_x	500.00	711.75
		CO	300.00	581.26
		VOC	26.39 (8)	65.48
		H_2SO_4	10.47	38.22
		NH_3	17.37 (7)	76.10
		Pb	0.06	0.25
		Hg	<0.01 (6)	<0.01
44B.SK1	Solid Fuel Mill, Clinker Cooler, and Regenerative Thermal Oxidizer	PM	2.03	8.87
		PM_{10}	2.03	8.87
		$PM_{2.5}$	0.81	3.55
		SO_2	<0.01	0.01
		NO_x	0.49	2.15
		CO	0.41	1.80
		VOC	0.22	0.96
44B.BF4	Pulverized Fuel Bin A	PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.02	0.08
44B.BF5	Pulverized Fuel Bin B	PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.02	0.08
6-15	Solid Fuel Transfer Solid Fuel Day Tank	PM	0.01	0.03

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	<0.01	<0.01
FuelMillBldg	Solid Fuel Transfer BC080 to Solid Fuel Mill	PM	<0.01	0.01
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
449.BF1/449.BF2	Clinker Transfer Baghouse Stack	PM	0.16	0.70
		PM_{10}	0.16	0.70
		$PM_{2.5}$	0.08	0.35
443.BF2	CKD Transfer Baghouse Stack	PM	0.11	0.49
		PM_{10}	0.11	0.49
		$PM_{2.5}$	0.06	0.24
EG1.SK1	Emergency Diesel Generator	PM	0.20	0.05
		PM_{10}	0.20	0.05
		$PM_{2.5}$	0.20	0.05
		SO_2	0.01	<0.01
		NO_x	3.95	0.99
		CO	3.46	0.86
		VOC	0.32	0.08
3-19	Clinker Transport Loading (outside pile)	PM	0.06	0.01
		PM_{10}	0.03	<0.01
		$PM_{2.5}$	<0.01	<0.01
F-RM4	Clinker Transfer to Inside Pile (RM Building)	PM	0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
1-29	Limestone Bin Dust Collector	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.04	0.19
1-30	Limestone Transfer onto Finish Mill Collection Belt 1 Baghouse	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.03	0.13
1-31	Limestone Transfer onto Finish Mill Collection Belt 2 Baghouse	PM	0.11	0.47
		PM_{10}	0.11	0.47
		$PM_{2.5}$	0.04	0.16
6-11	Reserve Solid Fuel Transfer Point (at Main Stockpile)	PM	0.07	<0.01
		PM_{10}	0.04	<0.01
		$PM_{2.5}$	0.01	<0.01
6-13	Reserve Solid Fuel Reclamation	PM	0.07	<0.01

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.01	<0.01
6-14	Reserve Solid Fuel Reclamation Transfer Point (at Main Stockpile)	PM	0.07	<0.01
		PM_{10}	0.04	<0.01
		$PM_{2.5}$	0.01	<0.01
6-12	Reserve Solid Fuel Stockpile	PM	0.19	0.83
		PM_{10}	0.10	0.42
		$PM_{2.5}$	0.01	0.06
7-5	Bulk Tank-East (when storing SNCR reagent)	VOC (urea)	0.29	0.01
		NH_3	<0.01	<0.01
7-8	Bulk Tank-West (when storing SNCR reagent)	VOC (urea)	0.29	0.01
		NH_3	<0.01	<0.01
7-4	SNCR Unloading Piping	NH_3	0.02	0.08
7-6	SNCR Kiln Transfer Piping	NH_3	0.10	0.42
1-33	Iron Source Stockpile	PM	0.28	0.93
		PM_{10}	0.14	0.46
		$PM_{2.5}$	0.02	0.07
444.BF2	Solid Fuel Material Handling Dust Collector #1 Baghouse Stack	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.13	0.56
444.BF3	Solid Fuel Material Handling Dust Collector #2 Baghouse Stack	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.13	0.56
444.BF4	Screening Station Dust Collector Baghouse Stack	PM	0.13	0.56
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.13	0.56
Planned Maintenance Activities				
7-5	Bulk Tank-East and Day Tank (when storing SNCR reagent)	VOC (urea)	0.08	<0.01
		NH_3	0.06	<0.01
7-8	Bulk Tank-West and Day Tank (when storing SNCR reagent)	VOC (urea)	0.08	<0.01
		NH_3	0.06	<0.01
7-1-1	Bulk Tank-East (when storing SNCR reagent)	VOC (urea)	<0.01	<0.01
		NH_3	0.08	0.01
7-1-3	Bulk Tank-West (when storing SNCR reagent)	VOC (urea)	<0.01	<0.01
		NH_3	0.08	0.01
7-7	Day Tank	NH_3	0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

MSSFUG1	Inherently Low Emitting (ILE) Planned Maintenance Activities	NO_x	<0.01	<0.01
		CO	0.02	<0.01
		SO_2	<0.01	<0.01
		PM	0.54	0.09
		PM_{10}	0.25	0.04
		$PM_{2.5}$	0.04	0.01
		VOC	0.18	<0.01
MSSFUG2	Non-ILE Planned Maintenance Activities	PM	0.90	0.39
		PM_{10}	0.90	0.39
		$PM_{2.5}$	0.46	0.20

(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
NH_3 - ammonia
H_2SO_4 - sulfuric acid
Pb - lead
Hg - mercury

(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) The hourly Hg emission rates apply based on the 30-operating day rolling average hourly emission rate.

(7) The hourly NH_3 emission rate is applicable as a 24-hour rolling average.

(8) The hourly VOC emission rates apply based on the 12-month rolling average hourly emission rate.

(9) Planned maintenance, startup, and shutdown (MSS) emissions are included.

Date: January 22, 2024