Emission Sources – Maximum Allowable Emission Rates

Permit Number 45622

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	
			lbs/hour	TPY (5)
KS2	Kiln No. 2 Stack	CO	14.46	63.33
		HCl	6.38	24.83
		HF	1.52	6.66
		NO_x	61.81	238.22
		Pb (6)	0.13	0.55
		PM	73.54	283.20
		PM_{10}	29.14	112.06
		$PM_{2.5}$	29.14	112.06
		SO_2 (4)	727.31	2353.83
		SO_3 (6)	8.78	28.83
		VOC	0.29	1.13
KS3	Kiln No. 3 Stack	CO	24.79	108.57
		HCl	10.94	42.56
		HF	2.61	11.42
		NO_x	105.95	408.38
		Pb (6)	0.22	0.95
		PM	126.27	486.38
		PM_{10}	50.15	193.00
		$PM_{2.5}$	50.15	193.00
		SO_2 (4)	1131.28	3716.60
		SO_3 (6)	15.05	49.43
		VOC	0.50	1.94
WHBS3	Kiln No. 3 Waste Heat Boiler (WHB) Stack	CO	24.79	108.57
		HCl	10.94	42.56
		HF	2.61	11.42
		NO_x	105.95	408.38
		Pb (6)	0.22	0.95

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		PM	88.20	486.38
		PM_{10}	44.72	193.00
		$PM_{2.5}$	44.72	193.00
		SO_2 (4)	1131.38	3716.60
		SO_3 (6)	15.05	49.43
		VOC	0.50	1.94
KS3/WHBS3	Total Kiln No. 3 and WHB Stacks	CO	-	108.57
		HCl	-	42.56
		HF	-	11.42
		NO_x	-	408.38
		Pb (6)	-	0.95
		PM	-	486.38
		PM_{10}	-	193.00
		$PM_{2.5}$		193.00
		SO_2 (4)	-	3716.60
		SO_3 (6)	-	49.43
		VOC	-	1.94
KS4	Kiln No. 4 Stack	CO	24.79	108.57
		HCl	10.94	42.56
		HF	2.61	11.42
		NO_x	105.95	408.38
		Pb (6)	0.22	0.95
		PM	126.86	488.97
		PM_{10}	50.74	195.59
		$PM_{2.5}$	50.74	195.59
		SO_2 (4)	1131.38	3716.60
		SO_3 (6)	15.05	49.43
		VOC	0.50	1.94
WHBS4	Kiln No. 4 WHB Stack	CO	24.79	108.57
		HCl	10.94	42.56
		HF	2.61	11.42
		NO_x	105.95	408.38

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		Pb (6)	0.22	0.95
		PM	88.79	488.97
		PM_{10}	45.31	195.59
		$PM_{2.5}$	45.31	195.59
		SO_2 (4)	1131.38	3716.60
		SO_3 (6)	15.05	49.43
		VOC	0.50	1.94
KS4/WHBS4	Total Kiln No. 4 and WHB Stacks	CO	-	108.57
		HCl	-	42.56
		HF		11.42
		NO_x	-	408.38
		Pb (6)	-	0.95
		PM	-	488.97
		PM_{10}	-	195.59
		$PM_{2.5}$		195.59
		SO_2 (4)	-	3716.60
		SO_3 (6)	-	49.43
		VOC	-	1.94
KS5	Kiln No. 5 Stack	CO	251.10	1100.00
		HCl	15.80	61.74
		HF	3.76	16.49
		NO_x	164.40	720.00
		Pb (6)	0.31	1.37
		PM	86.87	380.49
		PM_{10}	42.55	186.33
		$PM_{2.5}$	42.55	186.33
		SO_2 (4)	1170.00	5120.00
		SO_3 (6)	15.60	68.33
		VOC	0.50	2.50
WHBS5	Kiln No. 5 WHB Stack	CO	251.10	1100.00
		HCl	15.80	61.74
		HF	3.76	16.49

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		NO_x	164.40	720.00
		Pb (6)	0.31	1.37
		PM	86.87	380.49
		PM_{10}	42.55	186.33
		$PM_{2.5}$	42.55	186.33
		SO_2 (4)	1170.00	5120.00
		SO_3 (6)	15.60	68.33
		VOC	0.50	2.50
KS5/WHBS5	Total Kiln No. 5 and WHB Stacks	CO	251.10	1100.00
		HCl	15.80	61.74
		HF	3.76	16.49
		NO_x	164.40	720.00
		Pb (6)	0.31	1.37
		PM	86.87	380.49
		PM_{10}	42.55	186.33
		$PM_{2.5}$	42.55	186.33
		SO_2 (4	1170.00	5120.00
		SO_3 (6)	15.60	68.33
		VOC	0.50	2.50
CLR3DC	Cooler No. 3 Baghouse Stack	CO	5.61	24.55
		HCl	1.29	5.66
		HF	0.01	0.03
		NO_x	1.29	5.64
		PM	0.59	2.59
		PM_{10}	0.59	2.59
		$PM_{2.5}$	0.59	2.59
		SO_2	1.39	6.08
		SO_3	0.10	0.45
CLR5DC	Cooler No. 5 Baghouse Stack	CO	11.37	49.79
		HCl	2.62	11.47
		HF	0.02	0.07
		NO_x	2.61	11.43

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		PM	1.49	6.53
		PM_{10}	1.49	6.53
		$PM_{2.5}$	1.49	6.53
		SO_2	2.82	12.33
		SO_3	0.21	0.91
MTLHDL	Material Handling (7) (Raw and Calcined Coke Conveying)	PM	120.86	47.82
		PM_{10}	3.23	2.07
		$PM_{2.5}$	0.67	0.35
MTLLOAD	Raw Coke Loading Operations (Railcar and Truck Loading with Front-End Loader) (7)	PM	1.15	0.93
		PM_{10}	0.14	0.11
		$PM_{2.5}$	0.01	0.01
MTLUNLOAD	Raw Coke Unloading Operations (Raw Petcoke Barge and Ship Crane Unloading, Railcar Unloading, and Truck Unloading)	PM	5.62	3.73
		PM_{10}	0.69	0.46
		$PM_{2.5}$	0.08	0.06
PA-PILES	Process Area Short-Term Piles (7)	PM	0.13	0.57
		PM_{10}	0.01	0.06
		$PM_{2.5}$	0.01	0.01
SP	Stockpiles (7) (Raw and Calcined)	PM	6.73	27.78
		PM_{10}	0.74	3.22
		$PM_{2.5}$	0.12	0.52
5C2DC	Conveyor 5C2 Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.02
C25DC	Conveyor 25 Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.07
C31DC	Conveyor 31 Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.01	0.02
C35-HV	C35 Hi-Vac Unit Dust Collector Vent	PM	0.04	0.15
		PM_{10}	0.04	0.15
		$PM_{2.5}$	0.01	0.05

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C36DC	Conveyor C36 Insertable Dust Collector Vent	PM	0.04	0.18
		PM_{10}	0.04	0.18
		$PM_{2.5}$	0.02	0.09
C-37	C36/37 Conveyor Transfer Chute Dust Collector Vent	PM	0.17	0.74
		PM_{10}	0.17	0.74
		$PM_{2.5}$	0.02	0.09
C-38	C37/38 Conveyor Transfer Point Dust Collector Vent	PM	0.17	0.76
		PM_{10}	0.17	0.76
		$PM_{2.5}$	0.02	0.09
C&SDTBV	C and S Daytank Bin Vent	PM	0.07	0.31
		PM_{10}	0.07	0.31
		$PM_{2.5}$	0.01	0.05
CS-1	Calcine Silo No. 1 Bin Vent	PM	0.84	3.69
		PM_{10}	0.84	3.69
		$PM_{2.5}$	0.02	0.09
CS-2	Calcine Silo No. 2 Bin Vent	PM	0.70	3.08
		PM_{10}	0.70	3.08
		$PM_{2.5}$	0.01	0.05
CS-3	Calcine Silo No. 3 Bin Vent	PM	0.70	3.08
		PM_{10}	0.70	3.08
		$PM_{2.5}$	0.01	0.05
CS-4	Calcine Silo No. 4 Bin Vent	PM	0.49	2.16
		PM_{10}	0.49	2.16
		$PM_{2.5}$	0.01	0.05
CS-CC	Main Calcine Material Handling System Dust Collector (Airtrol Dust Collector) Vent	PM	2.56	11.22
		PM_{10}	2.56	11.22
		$PM_{2.5}$	0.06	0.34
CS-DV	T1/T2 Pneumatic Conveying System Dust Collector Vent	PM	0.33	1.43
		PM_{10}	0.33	1.43
		$PM_{2.5}$	0.01	0.05
L6DC	Conveyor L6 Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09

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L6ADC	Conveyor L6A Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
L25ADC	Conveyor L25A Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
L44DC	Conveyor L44 Insertable Dust Collector Vent	PM	0.04	0.18
		PM_{10}	0.04	0.18
		$PM_{2.5}$	0.02	0.09
L45DC	Conveyor L45 Insertable Dust Collector Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
LA-DC	Lab Annex Building Dust Collector Vent	PM	0.06	0.01
		PM_{10}	0.06	0.01
		$PM_{2.5}$	0.06	0.01
RD-DC2	Kiln RD Building Hi-Vac Dust Collector Vent	PM	0.07	0.08
		PM_{10}	0.07	0.08
		$PM_{2.5}$	0.07	0.08
SL-1	Ship Loading Dock Area Dust Collector (L44 Dust Collector) Vent	PM	0.91	4.00
		PM_{10}	0.91	4.00
		$PM_{2.5}$	0.09	0.06
SL1-DCL	Ship Loader DCL Spout Dust Collector Vent	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.02	0.04
SL1-T1	Ship Loader Transfer No. 1 (L44/L1) Dust Collector Vent	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.18
SL1-T2	Ship Loader Transfer No. 2 (L1/L2) Dust Collector Vent	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.09
SL1-T3	Ship Loader Transfer No. 3 (L2/L3) Dust Collector Vent	PM	0.09	0.38
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.09

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SL-PIT-DC	Total Ship Loading Pit Dust Collector Stack 1 and Stack 2 Vent	PM	0.28	0.62
		PM_{10}	0.28	0.62
		$PM_{2.5}$	0.09	0.02
SR-DC	Sample Prep Building Dust Collector Vent	PM	0.06	0.11
		PM_{10}	0.06	0.11
		$PM_{2.5}$	0.06	0.11
S1DC1	Silo 1 Insertable Dust Collector 1 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.02
S1DC2	Silo 1 Insertable Dust Collector 2 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.02
S1DC3	Silo 1 Insertable Dust Collector 3 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.02
S1DC4	Silo 1 Insertable Dust Collector 4 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.02
S2DC1	Silo 2 Insertable Dust Collector 1 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.03
S2DC2	Silo 2 Insertable Dust Collector 2 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.03
S2DC3	Silo 2 Insertable Dust Collector 3 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.03
S3DC1	Silo 3 Insertable Dust Collector 1 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.03
S3DC2	Silo 3 Insertable Dust Collector 2 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09

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		$PM_{2.5}$	0.02	0.03
S3DC3	Silo 3 Insertable Dust Collector 3 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.03
S4DC1	Silo 4 Insertable Dust Collector 1 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.05
S4DCL44	Silo 4 Insertable Dust Collector at L44 Vent	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.05

(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
HCl - hydrogen chloride
HF - hydrogen fluoride
NO_x - total oxides of nitrogen
Pb - lead
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
SO_2 - sulfur dioxide
SO_3 - sulfur trioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
(4) The hourly emission rate for SO_2 shall be the limit for stack testing purposes. The hourly emission rate for reporting SO_2 compliance with the permit shall be based on a 7-day rolling average from a 24-hour composite analysis of the blended raw feed sulfur content. The annual emission rate for reporting SO_2 compliance with the permit shall be based on a calendar year.
(5) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(6) Emitted as PM and included in the PM and PM_{10} emission rate.
(7) Fugitive emissions are an estimate only.

Date June 26, 2013