EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Flexible Permit Numbers 8996 and PSDTX454M3

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emissions 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)	Emission Rates *	
			lb/hr	TPY**
7*, 62*	Plantwide Cap for Kiln Lines 1 and 2	CO	3,878	7,113
		NO_x (non-ozone season)	--	2310.3 (5)
		NO_x (ozone season)	--	1134.2 (6)
		NO_x (annual)	--	3444.5
		PM/PM_{10} (filterable)	55	243
		PM/PM_{10} (condensable)	706	205
		PM/PM_{10} (total)	761	448
		SO_2 (1-hour)	5,200	--
		SO_2 (3-hour)	4,600	--
		SO_2 (24-hour)	3,800	--
		SO_2 (annual)	--	3,538
		TRS	30	36.6
		H_2SO_4	360	41
		VOC	584	875
		Speciated Compounds	79	302
	Plantwide Annual Emission Limits	PM (filterable)	--	517
		PM_{10} (filterable)	--	476
		PM (total)	--	723
		PM_{10} (total)	--	682
	Other PM/PM_{10}	PM (total)	77	--
	Short-Term Emission	PM_{10} (total)	66	--

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA Emission Rates * lb/hr	TPY**
ALTERNATE OPERATING SCENARIO				
62*	Kiln Line 2 Cap***	CO	1,939	3,556
		NO_x (non-ozone season)	--	1,155 (5)
		NO_x (ozone season)	--	567 (6)
		NO_x (annual)	--	1,722
		PM/PM_{10} (filterable)	32	138
		PM/PM_{10} (condensable)	353	103
		PM/PM_{10} (total)	385	241
		SO_2 (1-hour)	2,600	--
		SO_2 (3-hour)	2,300	--
		SO_2 (24-hour)	1,900	--
		SO_2 (annual)	--	1,769
		TRS	15	18
		H_2SO_4	180	20
		VOC	292	438
		Speciated Compounds	39	151
	Plantwide Annual Emission Limits Cap***	PM (filterable)	--	406
		PM_{10} (filterable)	--	364
		PM (total)	--	509
		PM_{10} (total)	--	467
	Other PM/PM_{10} Sources (4)	PM (total)	74	--
	Short-Term Emission	PM_{10} (total)	63	--

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3)

CO	-	carbon monoxide
NO_x	-	total oxides of nitrogen, collectively expressed (calculated) as nitrogen dioxide
PM	-	particulate matter, suspended in the atmosphere, including PM_{10}
PM_{10}	-	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.
SO_2	-	sulfur dioxide
TRS	-	total reduced sulfur
H_2SO_4	-	sulfuric acid
VOC	-	volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
Speciated Compounds	-	see Attachment II

(4) Other PM/PM_{10} Sources - except kiln stacks, includes all dust collectors and fugitive sources.
(5) Emission rate limit only applicable from November 1 through March 31.
(6) Emission rate limit only applicable from April 1 through October 31.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

** Compliance with annual emission and production limits is based on a rolling 12-month period.

*** Kiln Line 2 Cap and Other PM/PM_{10} Sources Cap applies only when Kiln Line 1 and associated dust collectors (EPNs 5*, 6*, 14*, 74*, 77*, and 80*) are taken off-line for over 12 months.

Maximum Allowable Production Rate during this period: 1.34 million short tons per year (tpy) of clinker

Maximum Allowable Production Rate with Both Kilns Operating: 2.67 million short tpy of clinker

Dated: October 15, 2010

ATTACHMENT I

Flexible Permit Numbers 8996 and PSDTX454M3

Permit Emission Points under Emission Cap

SITE-WIDE SOURCES UNDER THE MAERT CAP:

EPN	SOURCE NAME
1A*	Primary (Upper Bench) Limestone Crusher
2*	Secondary Crusher Baghouse Stack
3*	Raw Material Transfer Point Baghouse Stack
4*	Conveyor Belt Transfer Baghouse Stack
5*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 1
6*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 2
7*	Kiln No. 1 Main Baghouse, Bypass Baghouse, and Scrubber Stack
8*	Rotary Kiln Feed Silo Upper Baghouse Stack
9*	Rotary Kiln Feed Silo Lower Baghouse Stack
11*	Waste Bypass Dust Baghouse Stack
12*	Coal Handling Baghouse Stack
13*	Coal Storage Bin Baghouse Stack
14*	Clinker Conveyor Transfer Point Baghouse Stack
15*	Clinker Conveyor Baghouse Stack
16*	Gypsum Silo Baghouse Stack
17*	Upper Clinker Silos Baghouse Stack
18*	Gypsum Weigh Feeder Baghouse Stack
19*	Clinker Feeder No. 7 Baghouse Stack
20*	Clinker Feeder No. 1 Baghouse Stack
21*	Clinker Feeder No. 6 Baghouse Stack
22*	Clinker Feeder No. 4 Baghouse Stack
23*	Finish Mill System No. 1 Baghouse Stack
24*	Gypsum Weigh Feeder Baghouse Stack
25*	Clinker Weigh Feeder No. 2 Baghouse Stack
26*	Clinker Weigh Feeder No. 5 Baghouse Stack
27*	Clinker Weigh Feeder No. 3 Baghouse Stack
28*	Clinker Weigh Feeder No. 8 Baghouse Stack
29*	Finish Mill System No. 2 Baghouse Stack
30*	Cement Silo No. 1 Discharge Baghouse Stack
31*	Cement Silo No. 2 Discharge Baghouse Stack
32*	Cement Silo No. 4 Discharge Baghouse Stack
33*	Cement Silo No. 5 Discharge Baghouse Stack
34*	Cement Silo No. 7 Discharge Baghouse Stack
35*	Cement Silo No. 8 Discharge Baghouse Stack
36*	Cement Silo No. 1 Filling Baghouse Stack
EPN	SOURCE NAME

37*	Cement Silo No. 7 Filling Baghouse Stack
38A*	Coal Storage Pile
38B*	Gypsum Storage Pile
38C*	Clinker Storage Pile
38D*	Alternate Fuels Storage Pile
38E*	Dust - Alkali Bypass to Truck
38F*	Coal/Gypsum - Rail Dump to Reclaim Conveyor
38G*	Coal - Reclaim Conveyor to Stacker
38H*	Coal - Loader to Coal Hopper
38I*	Gypsum - Reclaim Conveyor to Gypsum Pile
38J*	Gypsum - Loader to Gypsum Hopper
38K*	Clinker - Loader to Clinker Hopper
38 L*	Alumina Source - Rail Unloading to Truck
38 M*	Variable Import/Export Storage Pile
38N*	Reserve Limestone Storage Pile
39*	Quarry
40A*	Shale Storage Pile No. 1
40B*	Shale Storage Pile No. 2 and Shale- Reclaimer (West)
40C*	Shale Storage Pile No. 2 and Shale- Reclaimer (East)
40D*	Raw Material Storage Pile/Raw and Materials- Reclaimer (East)
40E*	Raw Material Storage Pile/Raw and Materials- Reclaimer (West)
40F*	Shale - Loader to Hopper
41*	Cement - Cement Silos to Rail/Truck
42*	Shale Crusher Discharge Baghouse Stack
43*	Line No. 2 Raw Mill Feed Bins Baghouse Stack No. 1
44*	Raw Mill Discharge Airslide Baghouse Stack
45*	Kiln Feed System No. 1 Baghouse Stack
46*	Blending Silo Upper Baghouse Stack
47*	Blending Silo Lower Baghouse Stack
48*	Kiln Feed System No. 2 Baghouse Stack
49*	Pan Conveyor Under Clinker Cooler Baghouse Stack
50*	Dust Bin Baghouse Stack
51*	Clinker Silo No. 1 Discharge Baghouse Stack (North)
52*	Clinker Silo No. 1 Discharge Baghouse Stack (South)
53*	Slag/Gypsum Bins and Belt Discharge Baghouse Stack
54*	Clinker Silo No. 2 Discharge Baghouse Stack (North)
55*	Clinker Silo No. 2 Discharge Baghouse Stack (South)
56*	Clinker Silo Feeder Baghouse Stack
57*	Clinker Conveyor Transfer Point Baghouse Stack
EPN	SOURCE NAME

58*	Belt-Air-Slide Transfer Point 1 Baghouse Stack
59*	Belt-Air-Slide Transfer Point 2 Baghouse Stack
60*	Bulk Loading 1 Baghouse Stack
61*	Truck Loadout - 1 Baghouse Stack
62*	Kiln No. 2 Main Baghouse, Bypass Baghouse, Coal Mill Baghouse, and Scrubber Stack
63*	Rail Loadout - 1 Baghouse Stack
64*	Coal Mill Conveyor Baghouse Stack
65*	Truck Loadout- 2 Baghouse Stack
66*	SKS & Cement Mill Baghouse Stack
67*	Cement Silo Filling Baghouse Stack (North)
68*	Cement Silo Filling Baghouse Stack (South)
69*	Truck/Rail Loadout Baghouse Stack (North)
70*	Truck/Rail Loadout Baghouse Stack (South)
71*	Air-Slide Conveyor Baghouse Stack
72*	Pulverized Coal Bin Baghouse Stack
73*	Pulverized Coal Bin CO Analyzer Baghouse Stack
74*	Scrubber (Reagent -Feed) System 1 - Line 1
75A*	Primary (Lower Bench) Limestone Crusher
76*	Cooling Tower
77*	Line 1 Kiln Dust Bin Baghouse Stack
78*	Line 2 Kiln Dust Bin Baghouse Stack
79*	Line No. 2 Raw Mill Feed Bins Baghouse Stack No. 2
80*	Line No. 1 Raw Mill Feed Bins Baghouse Stack No. 3
81*	Clinker Silo De-Dusting Baghouse Stack No. 1
82*	Clinker Silo De-Dusting Baghouse Stack No. 2
83*	Clinker Silo De-Dusting Baghouse Stack No. 3
84*	Raw Material Handling Baghouse Stack No. 1
85*	Raw Material Handling Baghouse Stack No. 2
RMR*	Raw Material Road
GPR*	Gypsum Road
AFR*	Alternate Fuels Road
PRR*	Product Road
BDR*	Bypass Dust Road
1B*	Primary (Upper Bench) Limestone Crusher Engine
75B*	Primary (Lower Bench) Limestone Crusher Engine

Dated: October 15, 2010

ATTACHMENT II

Flexible Permit Numbers 8996 and PSDTX454M3

Combined Kiln Speciated Compounds Emissions Limit Summary

EPN	Emission Point Description	Speciated Compound	lb/hr	TPY
7* and 62*	Kiln No. 1 Main Baghouse, Bypass Baghouse, and Scrubber Stack and Kiln No. 2 Main Baghouse, Bypass Baghouse, Coal Mill Baghouse, and Scrubber Stack	Aluminum	0.24	0.92
		Ammonia	4.02	15.38
		Ammonium Chloride	7.72	29.56
		Arsenic	0.01	0.02
		Barium	0.18	0.68
		Benzaldehyde	0.90	3.44
		Benzene	12.60	48.24
		Benzo(a)pyrene	5.22E-05	2.00E-04
		Beryllium	2.64E-04	1.01E-03
		Boron	0.02	0.08
		Cadmium	8.82E-04	3.38E-03
		Chromium	0.06	0.22
		Copper (fume)	2.12	8.12
		Ethyl Toluene	3.38	12.94
		Ethylbenzene	2.08	7.96
		Fluorene	0.01	0.02
		Fluoride (as HF)	0.36	1.38
		Hydrogen Chloride	3.88	14.86
		Iron	0.34	1.30
		Lead	0.04	0.16
		Manganese (fumes)	0.02	0.08
		Mercury	.02	0.08
		Methyl Indene	4.04	15.46
		Methyl Mercaptan	0.92	3.52
		Methyl Styrene	0.02	0.08
		Methylene Chloride	0.20	0.76
		Naphthalene	0.68	2.60
		Nickel	0.02	0.08
		OCDD	8.02E-07	3.08E-06
		OCDF	1.67E-07	6.40E-07
		Pentadiene (all isomers)	2.46	9.42
		Phenathrene	0.16	0.62
		Selenium	0.08	0.30
		Silver	1.00E-03	3.82E-03
		Styrene	2.76	10.56
		Thallium	3.30E-03	0.02
		Toluene	19.66	75.26
EPN	Emission Point Description	Speciated Compound	lb/hr	TPY

Total HpCDD	3.38E-07	1.30E-06
Total HpCDF	1.09E-07	4.20E-07
Total HxCDD	1.45E-07	5.60E-07
Total HxCDF	1.47E-07	5.60E-07
Total PeCDD	1.08E-06	4.14E-06
Total PeCDF	1.16E-07	4.40E-07
Total TCDD	1.85E-08	8.00E-08
Total TCDF	4.54E-07	1.74E-06
Xylenes	9.70	37.14
Zinc	0.14	0.54

Total speciated compounds emissions from combined kilns 79 lb/hr 302 tpy

Dated: October 15, 2010

Flexible Permit Numbers 8996 and PSDTX454M3

Kiln No. 2 Speciated Compounds Emissions Limit Summary for Alternate Operating Scenario

EPN	Emission Point Description	Speciated Compound	lb/hr	TPY
62*	Kiln No. 2 Main Baghouse, Bypass Baghouse, Coal Mill Baghouse, and Scrubber Stack	Aluminum	0.12	0.46
		Ammonia	2.01	7.69
		Ammonium Chloride	3.86	14.78
		Stack and Arsenic	3.53E-03	0.01
		Barium	0.09	0.34
		Benzaldehyde	0.45	1.72
		Benzene	6.30	24.12
		Benzo(a)pyrene	2.61E-05	9.99E-05
		Beryllium	1.32E-04	5.04E-04
		Boron	0.01	0.04
		Cadmium	4.41E-04	1.69E-03
		Chromium	0.03	0.11
		Copper (fume)	1.06	4.06
		Ethyl Toluene	1.69	6.47
		Ethylbenzene	1.04	3.98
		Fluorene	3.81E-03	0.01
		Fluoride (as HF)	0.18	0.69
		Hydrogen Chloride	1.94	7.43
		Iron	0.17	0.65
		Lead	0.02	0.08
		Manganese (fumes)	0.01	0.04
		Mercury	0.01	0.04
		Methyl Indene	2.02	7.74
		Methyl Mercaptan	0.46	1.76
		Methyl Styrene	0.01	0.04
		Methylene Chloride	0.10	0.38
		Naphthalene	0.34	1.30
		Nickel	0.01	0.04
		OCDD	4.01E-07	1.54E-06
		OCDF	8.33E-08	3.20E-07
		Pentadiene (all isomers)	1.23	4.71
		Phenathrene	0.08	0.31
		Selenium	0.04	0.15
		Silver	5.00E-04	1.91E-03
		Styrene	1.38	5.28
		Thallium	1.65E-03	0.01
		Toluene	9.83	37.63
		Total HpCDD	1.69E-07	6.50E-07
EPN	Emission Point Description	Speciated Compound	lb/hr	TPY

Total HpCDF	5.45E-08	2.10E-07
Total HxCDD	7.26E-08	2.80E-07
Total HxCDF	7.36E-08	2.80E-07
Total PeCDD	5.41E-06	2.07E-06
Total PeCDF	5.82E-08	2.20E-07
Total TCDD	9.26E-09	4.00E-08
Total TCDF	2.27E-07	8.70E-07
Xylenes	4.85	18.57
Zinc	0.07	0.27

Total speciated compounds emissions from Kiln No. 2 39 lb/hr 151 tpy

Dated: October 15, 2010