#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

#### Permit Numbers 6048 and PSDTX74M1

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.

Emission Source		AIR CON <sup>-</sup> Air Contaminant		AMINANTS DATA Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY	
PS-1	Clay Crusher	PM	0.32	1.35	
	Baghouse	PM <sub>10</sub>	0.16	0.68	
PS-2	Clay Belt Transfer	PM	0.32	1.35	
	Baghouse	PM <sub>10</sub>	0.16	0.68	
PS-3	Raw Aeropol	PM	2.17	9.10	
	Cyclone	PM <sub>10</sub>	1.08	4.54	
PS-4	Blending Silo	PM	1.60	6.74	
	Baghouse	PM <sub>10</sub>	0.80	3.37	
PS-5	Rail Hopper Belt	PM	1.04	4.35	
	Baghouse	PM <sub>10</sub>	0.52	2.18	
PS-6	Coal/Gypsum Belt Transfer	PM	0.32	1.35	
	Baghouse	PM <sub>10</sub>	0.16	0.68	
PS-7	Tri-Gate Diverter	PM	0.32	1.35	
	Baghouse	PM <sub>10</sub>	0.16	0.68	
PS-8	Coal Belt Transfer	PM	0.56	2.36	
	Baghouse	PM <sub>10</sub>	0.28	1.18	
PS-9	Coal/Coke Silos	PM	0.48	2.02	
	Baghouse	PM <sub>10</sub>	0.24	1.01	
PS-10	Coal Mill Cyclone	PM	4.49	18.87	
	Baghouse	PM <sub>10</sub>	2.25	9.43	
PS-11	Coal Bin Passive Bag	PM	0.03	0.13	
	Filter	PM <sub>10</sub>	0.02	0.07	
PS-12	Coke Bin Passive Bag	PM	0.03	0.13	

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		AIR CONTAMINANTS DATA		
Emission	Source	Air Contaminant	<u>Emissio</u>	n Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	Filter	PM <sub>10</sub>	0.02	0.07
PS-13	Solid Fuel Pump Feeders	PM	0.80	3.37
	Baghouse	PM <sub>10</sub>	0.40	1.68
PS-14	Kiln Feed Bucket Elevator	PM	0.48	2.02
	Baghouse	PM <sub>10</sub>	0.24	1.01
PS-15	Kiln Feed Buffer Bin	PM	0.80	3.37
	Baghouse	PM <sub>10</sub>	0.40	1.68
PS-16	Kiln No. 1 Main Baghouse	PM (FH +BH) PM <sub>10</sub> (FH + BH) VOC NO <sub>x</sub> **** SO <sub>2</sub> *** CO** HCI NH <sub>3</sub>	22.36 20.49 13.10 744.00 106.00 772.00 2.11 1.31	84.10 77.83 44.00 (6) (6) (6) 8.86 5.5
PS-16A	Kiln 1 Main Bucket	PM	0.04	0.17
	Elevator Baghouse	PM <sub>10</sub>	0.02	0.08
PS-19	Clinker Cooler Drag Chain	PM	1.11	4.68
	Baghouse	PM <sub>10</sub>	0.56	2.34
PS-20	Kiln Line 1 Clinker Cooler	PM	7.76	26.08
	Baghouse	PM <sub>10</sub>	5.90	19.82
PS-21	Clinker Loadout Bin	PM	0.60	2.63
	Baghouse	PM <sub>10</sub>	0.30	1.31
PS-22	Clinker Silos Top	PM	2.23	9.36
	Transfers Baghouse	PM <sub>10</sub>	1.11	4.68
PS-23	Clinker Silo No. 1 Feeder	PM	0.15	0.65
	Baghouse	PM <sub>10</sub>	0.08	0.33

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		AIR CONTAMINANTS DATA		
Emission	Source	Air Contaminant	<u>Emissio</u> i	n Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
, ,	. ,			
PS-24	Clinker Silo No. 2 Feeder	PM	0.17	0.75
1 0 24	Baghouse	PM <sub>10</sub>	0.08	0.33
	Bagnouse	г IVI <u>1</u> 0	0.00	0.55
PS-25	Clinker Silo No. 3 North	PM	0.15	0.65
	Baghouse	$PM_{10}$	0.08	0.33
DC 20	Clinker Cile No. 2 Courth	DM	0.15	0.05
PS-26	Clinker Silo No. 3 South	PM	0.15	0.65
	Baghouse	$PM_{10}$	80.0	0.33
PS-27	Clinker Silo No. 4 Feeder	PM	0.15	0.65
	Baghouse	$PM_{10}$	0.08	0.33
PS-28	Clinker Silo No. 5 Feeder	PM	0.15	0.65
	Baghouse	$PM_{10}$	0.08	0.33
PS-29	Clinker Silo No. 6 North	PM	0.15	0.65
1 0 20	Baghouse	PM <sub>10</sub>	0.08	0.33
	Bagnoase	1 14110	0.00	0.00
PS-30	Clinker Silo No. 6 South	PM	0.15	0.65
	Baghouse	$PM_{10}$	0.08	0.33
DO 04	E I M. II E. I	514	0.50	45.05
PS-31	Finish Mill Baghouse	PM	3.58	15.05
	No. 1	$PM_{10}$	1.79	7.52
PS-32	Cement Cooler No. 1	PM	0.31	1.30
	Transfer Baghouse	$PM_{10}$	0.15	0.65
	-			
PS-33	Finish Mill No. 1	PM	0.80	3.37
	Separator Baghouse	$PM_{10}$	0.40	1.68
PS-34	Finish Mill Baghouse	PM	3.58	15.05
1 3 34	No. 2	PM <sub>10</sub>	1.79	7.52
	140. 4	i iAiTO	1.10	1.52
			_	
PS-35	Cement Cooler No. 2	PM	0.31	1.30
	Transfer Baghouse	$PM_{10}$	0.15	0.65
PS-36	Finish Mill No. 2	PM	0.80	3.37
1 5 50	i iiii3ii iviiii ivo. Z	I IVI	0.00	5.51

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		AIR CONTAMINANTS DATA		
Emission	Source	Air Contaminant	Emission	n Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
<u> </u>				<u> </u>
	Separator Baghouse	$PM_{10}$	0.40	1.68
	Separator Bagnouse	1 14110	0.40	1.00
PS-37	Coment Aeropole	PM	0.79	3.31
P3-31	Cement Aeropols			
	Baghouse	$PM_{10}$	0.39	1.66
PS-38	South Aeropol Transfer	PM	1.11	4.68
	Baghouse	$PM_{10}$	0.56	2.34
PS-39	North Silo Distribution	PM	0.79	3.31
	Baghouse	$PM_{10}$	0.20	0.83
	Bagnoase	1 14110	0.20	0.00
PS-40	North Aeropol Transfer	PM	1.11	4.68
F3-40	•			
	Baghouse	$PM_{10}$	0.56	2.34
_				
PS-41	South Silo Distribution	PM	0.79	3.31
	Baghouse	$PM_{10}$	0.39	1.66
PS-42	Loadout Spout No. 1	PM	0.70	2.95
	Baghouse	$PM_{10}$	0.35	1.48
	3	10		
PS-43	Loadout Spout No. 2	PM	0.70	2.95
1 3-43	Baghouse	PM <sub>10</sub>	0.35	1.48
	Bagnouse	F 1V110	0.55	1.40
DC 44	Londont Count No. 0	D14	0.70	0.05
PS-44	Loadout Spout No. 3	PM	0.70	2.95
	Baghouse	$PM_{10}$	0.35	1.48
PS-45	Regrind Bin Baghouse	PM	0.07	0.27
		$PM_{10}$	0.03	0.14
PS-46	Regrind Cyclone	PM	0.26	1.08
	Baghouse	$PM_{10}$	0.13	0.54
	Bagnoase	1 11110	0.10	0.04
PS-47	Silo 13 LKD	PM	0.19	0.79
1 J- <del>4</del> 1	Baghouse		0.19	0.79
DC 40	•	$PM_{10}$		
PS-48	Silo 14 Alumina Baghouse	PM	0.21	0.18
		$PM_{10}$	0.10	0.09
				_
PS-49	Slag Silo Filter Vent	PM	0.15	0.68
		$PM_{10}$	0.08	0.34

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission	Source	Air Contaminant	Emission	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
1 OHICTOO. (1)	Name (2)	Name (o)	10/111	
PS-50	North Slag Feeder Filter Vent	PM PM <sub>10</sub>	0.15 0.08	0.68 0.34
	riilei veiil	FIVI <sub>10</sub>	0.06	0.34
PS-51	South Slag Feeder	PM	0.15	0.68
	Filter Vent	$PM_{10}$	80.0	0.34
PS-61	Transfer Tower Clay	PM	0.005	0.02
	Baghouse	$PM_{10}$	0.002	0.01
PS-62	Mill Scale Bin	PM	0.01	0.03
	Baghouse	$PM_{10}$	0.003	0.01
PS-63	Bottom Ash Bin	PM	0.01	0.03
	Baghouse	PM <sub>10</sub>	0.003	0.01
PS-64	Limestone Bin	PM	0.02	0.08
	Baghouse	$PM_{10}$	0.01	0.03
PS-65	Weight Feeder Mill Scale	PM	0.01	0.05
. 0 00	Baghouse	PM <sub>10</sub>	0.004	0.02
PS-66	Weight Feeder Bottom Ash	PM	0.01	0.05
	Baghouse	$PM_{10}$	0.004	0.02
PS-67	Weight Feeder Limestone	PM	0.01	0.05
	Baghouse	$PM_{10}$	0.004	0.02
PS-68	Weight Feeder Clay	PM	0.01	0.05
	Baghouse	PM <sub>10</sub>	0.004	0.02
PS-69	Additives Belt Conveyor	PM	0.01	0.05
	Baghouse	$PM_{10}$	0.004	0.02
PS-70	Raw Material Rejected Baghouse	PM PM <sub>10</sub>	0.004 0.001	0.02 0.01
	•			
PS-71	Raw Material Transfer Baghouse	PM PM <sub>10</sub>	0.01 0.004	0.05 0.02
	Daynouse	r 1 <b>v</b> 110	0.004	0.02

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission	Source	Air Contaminant	Emission	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
<u>1 OITE 140. (1)</u>	Name (2)	Name (3)	10/111	
PS-72	Feed to Blending Silo	PM	0.01	0.05
	Baghouse	$PM_{10}$	0.004	0.02
	3	10		
PS-73	Blending Silo #2	PM	0.01	0.05
	Baghouse	PM <sub>10</sub>	0.004	0.02
		1 1120		
PS-74	K-2 Feed Buffer Bin	PM	0.01	0.04
	Baghouse	$PM_{10}$	0.004	0.02
	_ a.g a.c.	10		0.02
PS-75	K-2 Feed Bucket Elevator	PM	0.01	0.03
. • . •	Bottom Baghouse	PM <sub>10</sub>	0.003	0.01
	Bottom Bagnoado	. 1110	0.000	0.01
PS-76	K-2 Feed Bucket Elevator	PM	0.01	0.04
	Top Baghouse	$PM_{10}$	0.004	0.02
	. op zageaee	10	0.00	0.02
PS-77	Kiln No. 2 Main	PM (FH + BH)	24.61	92.64
	Baghouse	PM <sub>10</sub> (FH + BH)	22.57	85.78
	Bagneass	VOC	13.07	43.90
		NO <sub>x</sub> ****	744.00	(6)
		SO <sub>2</sub> ***	106.00	(6)
		CO**	772.00	
		HCI	2.34	(6) 9.81
				6.0
		$NH_3$	1.43	0.0
PS-78	Airslide to Buffer Bin	PM	0.001	0.005
1 3-70	Baghouse	PM <sub>10</sub>	0.0004	0.003
	bagnouse	L 14110	0.0004	0.002
PS-79	Buffer Bin	PM	0.001	0.004
1 3 7 3	Baghouse	PM <sub>10</sub>	0.0004	0.004
	Bagnouse	1 14110	0.0004	0.002
PS-80	Kiln Line 2 Clinker Cooler	PM	10.36	34.81
1 0 00	Baghouse	PM <sub>10</sub>	7.87	26.45
PS-81	Pan Conveyor No. 2 Transfer		0.01	0.03
1 3 01	Baghouse	PM <sub>10</sub>	0.003	0.03
	Bagnouse	1 14110	0.003	0.01
PS-82	Pan Conveyor Tower Transfe	r PM	0.01	0.03
1 5 02	Baghouse	PM <sub>10</sub>	0.003	0.03
	Dagnouse	1 1 <b>V</b> 110	0.003	0.01
PS-83	Clinker Silo	PM	0.01	0.03
1 3-03	CITINGI SIIO	I IVI	0.01	0.03

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

		AIR CONTAMINANTS DATA		
Emission	Source	Air Contaminant	Emission	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	Baghouse	$PM_{10}$	0.003	0.01
PS-84	Finish Mill No. 3 Weigh Feede	er PM	0.01	0.03
	Silo 1 Baghouse	PM <sub>10</sub>	0.002	0.01
PS-85	Finish Mill No. 3 Weigh Feede	er PM	0.01	0.03
	Silo 2 Baghouse	PM <sub>10</sub>	0.002	0.01
PS-86	Lime Dust Bin	PM	0.001	0.004
	Baghouse	PM <sub>10</sub>	0.003	0.001
PS-87	Finish Mill Weigh Feeder	PM	0.01	0.03
	Gypsum Baghouse	PM <sub>10</sub>	0.002	0.01
PS-88	Bucket Elevator Feed FM 3	PM	0.01	0.03
	Baghouse	PM <sub>10</sub>	0.002	0.01
PS-89	Belt Feed Finish Mill 3	PM	0.003	0.01
	Baghouse	PM <sub>10</sub>	0.001	0.01
PS-90	Finish Mill No. 3	PM	1.96	8.25
	Baghouse	PM <sub>10</sub>	0.98	4.12
PS-91	Mill No. 3 Airslide Transfer	PM	0.01	0.04
	Baghouse	PM <sub>10</sub>	0.004	0.02
PS-92	Mill No. 3 Coolers Cement	PM	0.01	0.03
	Transfer Baghouse	PM <sub>10</sub>	0.003	0.01
PS-93	Gral Bucket Elevator Top	PM	0.01 0.003	0.03
PS-94	Baghouse	PM <sub>10</sub>	0.003	0.01
	Transfer Bucket Elevator Top	PM	0.01	0.04
	Baghouse	PM <sub>10</sub>	0.003	0.01
PS-95	Vent Airslide to Cement Silos	PM	0.01	0.04
	Baghouse	PM <sub>10</sub>	0.004	0.02
PS-96	Cement Silo	PM	0.01	0.04
	Baghouse	PM <sub>10</sub>	0.004	0.02

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

	AIR CONTAMINANTS DATA			
Emission	Source	Air Contaminant	<u>Emission</u>	Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
<u>. ome (10) (2)</u>	140.110 (2)	i voime (e)	10,111	<del></del>
PS-97	Cement Buffer Bin	PM	0.03	0.13
P3-91				
	Baghouse	$PM_{10}$	0.01	0.05
PS-98	Vent Airslide to Spout #1	PM	0.02	0.08
	Baghouse .	$PM_{10}$	0.01	0.03
	_ 0.900.00	10	0.0_	0.00
PS-99	No. 1 Loadout Spout	PM	0.02	0.08
F 3-99				
	Baghouse	$PM_{10}$	0.01	0.03
PS-100	Vent Airslide to Spout #2	PM	0.02	0.08
	Baghouse	PM <sub>10</sub>	0.01	0.03
	3			
PS-101	No. 2 Loadout Spout	PM	0.02	0.08
1 3-101				
	Baghouse	$PM_{10}$	0.01	0.03
PS-102	No. 1 Pet Coke Transfer	PM	0.01	0.04
	Baghouse	$PM_{10}$	0.003	0.01
PS-103	No. 2 Coke Belt Transfer	PM	0.01	0.04
1 3 100		PM <sub>10</sub>	0.003	0.01
	Baghouse	PIVI <sub>10</sub>	0.003	0.01
DO 101	N 00 L MILD: 4	514	0.000	0.04
PS-104	No. 2 Coke Mill Bin 1	PM	0.003	0.01
	Baghouse	$PM_{10}$	0.001	0.005
PS-105	No. 2 Coke Mill	PM	4.96	20.82
. 0 _00	Baghouse	$PM_{10}$	2.48	10.41
	Dagnouse	1 14110	2.40	10.71
DC 100	Finish Calca Na. 2 Bin 1	DM.	0.001	0.004
PS-106	Finish Coke No. 2 Bin 1	PM	0.001	0.004
	Baghouse	$PM_{10}$	0.0003	0.001
PS-107	Finish Coke No. 2 Bin 2	PM	0.001	0.004
	Baghouse	PM <sub>10</sub>	0.0003	0.001
	3			
PS-108	Limestone Transfer Point	PM	0.02	0.08
. 5 100			0.02	
	Baghouse	$PM_{10}$	0.007	0.03
DO 400	- 101 · -: : 1 · ···	D14	0.01	0.00
PS-109	Feed Slag to Finish Mill	PM	0.01	0.03
	Baghouse	$PM_{10}$	0.002	0.01

#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

7.39

10.31

2,801

1.915

116.5

Emission	Source	Air Contaminant	Emiss	ion Rates *
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
FUGITIVE EMISSION	NS: MATERIAL DROPS T	O STATIONARY SOURCES		
FC-1	Process Fugitive (4)	PM PM <sub>10</sub>	-	1.35 0.64
FUGITIVE EMISSIC EROSION	ONS FROM MATERIAL	STOCKPILES: MATERIAL	DROPS	AND WIND
FC-2	Stockpiles (4)	PM PM <sub>10</sub>	- -	7.86 3.93

- (1) Emission point identification either specific equipment designation or emission point number (EPN) from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) PM total suspended particulate (including PM<sub>10</sub>)

Limits (6)

Material Handling (4) (5)

Kiln 1 and Kiln 2 Combined

PM<sub>10</sub> - particulate matter (PM) 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.

PM/PM<sub>10</sub>

 $NO_x$ 

 $SO_2$ 

CO

- VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> total oxides of nitrogen
- SO<sub>2</sub> sulfur dioxide
- CO carbon monoxide
- HCl hydrochloric acid
- NH<sub>3</sub> ammonia

MTL

PS-16 + PS-77

- (4) Fugitive emissions are an estimate only.
- (5) Material handling consists of EPNs BA-5, CGS-12, CGS-13, RS-21, RS-22, SD-2, SD-6, SD-7, SD-8, SD-13, SD-14, and SD-15.
- (6) Kiln 1 and Kiln 2 combined emission limits for NO<sub>x</sub>, SO<sub>2</sub>, CO.
  - \* 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 8,400 Hrs/year

#### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- \*\* 24-hour average as determined by the continuous emission measurement system.
- \*\*\* 3-hour average as determined by the continuous emission measurement system.
- \*\*\*\* Compliance based on a 30-day rolling average.

Dated: February 26, 2010