Version 020408

Plantwide Emissions	Maximum Annual			Maximum Hourly			Average Hourly		
EU Description	PM_{10} tons/yr	SO_2 tons/yr	NO_X tons/yr	PM_{10} lb/hr	SO_2 lb/hr	NO_X lb/hr	PM_{10} lb/hr	SO_2 lb/hr	NO_X lb/hr
Point Sources									
Kiln System	391.41	1084.05	2135.25	89.36	450.00	487.50	89.36	247.50	487.50
Raw Mill & Kiln Feed	17.56	0.00	0.00	4.01	0.00	0.00	4.01	0.00	0.00
Coal/Coke System	10.57	0.00	0.00	2.41	0.00	0.00	2.41	0.00	0.00
Clinker Transfer & Storage	2.45	0.00	0.00	0.56	0.00	0.00	0.56	0.00	0.00
Finish Mills	48.55	0.00	0.00	11.08	0.00	0.00	11.08	0.00	0.00
Cement Transfer & Storage	25.22	0.00	0.00	6.13	0.00	0.00	5.76	0.00	0.00
Existing Terminal	1.89	0.00	0.00	0.43	0.00	0.00	0.43	0.00	0.00
Emergency Generator	0.07	0.10	2.78	0.29	0.40	11.11	0.02	0.02	0.63
Subtotal Point Sources	497.71	1084.15	2138.03	114.28	450.40	498.61	113.63	247.52	488.13
Fugitive Sources									
Quarry Equipment	3.20	0.00	0.00	0.73	0.00	0.00	0.73	0.00	0.00
Plant Process Equipment	2.18	0.00	0.00	0.50	0.00	0.00	0.50	0.00	0.00
Wind Erosion - Storage Piles	4.20	0.00	0.00	0.96	0.00	0.00	0.96	0.00	0.00
Mining Operations	6.48	0.00	0.00	1.48	0.00	0.00	1.48	0.00	0.00
Plant Roads	1.81	0.00	0.00	0.41	0.00	0.00	0.41	0.00	0.00
Quarry Roads	19.78	0.00	0.00	4.52	0.00	0.00	4.52	0.00	0.00
Subtotal Fugitive Sources	37.66	0.00	0.00	8.60	0.00	0.00	8.60	0.00	0.00
Total Emissions	**535.37**	**1,084.15**	**2,138.03**	**122.88**	**450.40**	**498.61**	**122.23**	**247.52**	**488.13**

Notes

Kiln PM_{10} emissions include an estimate of condensible particulate matter.

Kiln Stack Parameters:	Normal Operation (Mill On & Long-term)			Mill Off Condition (Short-term SO2)		
	Flow	673,804	acfm	Flow	653,251	acfm
	Temp	193	deg F	Temp	435	deg F
	Height	410.1	ft	Height	410.1	ft
	Diameter	14.76	ft	Diameter	14.76	ft

Plantwide Emissions	PM Hourly			PM_{10} Hourly			$PM_{2.5}$ Hourly		
EU Description	PM Filterable lb/hr	PM Condensible lb/hr	PM Total lb/hr	PM_{10} Filterable lb/hr	PM_{10} Condensible lb/hr	PM_{10} Total lb/hr	$PM_{2.5}$ Filterable lb/hr	$PM_{2.5}$ Condensible lb/hr	$PM_{2.5}$ Total lb/hr
Point Sources									
Kiln System	49.36	40.00	89.36	49.36	40.00	89.36	26.44	40.00	66.44
Raw Mill & Kiln Feed	4.77	0.00	4.77	4.01	0.00	4.01	2.15	0.00	2.15
Coal/Coke System	2.87	0.00	2.87	2.41	0.00	2.41	1.29	0.00	1.29
Clinker Transfer & Storage	0.66	0.00	0.66	0.56	0.00	0.56	0.30	0.00	0.30
Finish Mills	13.19	0.00	13.19	11.08	0.00	11.08	5.94	0.00	5.94
Cement Transfer & Storage	7.30	0.00	7.30	6.13	0.00	6.13	3.29	0.00	3.29
Existing Terminal	0.51	0.00	0.51	0.43	0.00	0.43	0.23	0.00	0.23
Emergency Generator	0.35	0.00	0.35	0.29	0.00	0.29	0.28	0.00	0.28
Subtotal Point Sources	79.04	40.00	119.04	74.28	40.00	114.28	39.92	40.00	79.92
Fugitive Sources									
Quarry Equipment	1.60	0.00	1.60	0.73	0.00	0.73	0.13	0.00	0.13
Plant Process Equipment	1.05	0.00	1.05	0.50	0.00	0.50	0.08	0.00	0.08
Wind Erosion - Storage Piles	1.92	0.00	1.92	0.96	0.00	0.96	0.14	0.00	0.14
Mining Operations	2.98	0.00	2.98	1.48	0.00	1.48	0.22	0.00	0.22
Plant Roads	2.12	0.00	2.12	0.41	0.00	0.41	0.10	0.00	0.10
Quarry Roads	15.88	0.00	15.88	4.52	0.00	4.52	0.45	0.00	0.45
Subtotal Fugitive Sources	25.55	0.00	25.55	8.60	0.00	8.60	1.12	0.00	1.12
Total Emissions	**104.59**	**40.00**	**144.59**	**82.88**	**40.00**	**122.88**	**41.04**	**40.00**	**81.04**

Notes
Maximum hourly emissions are shown

PM Size Distribution

Filterable Emissions				Filterable Emissions					Filterable + Condensible	
PM, fraction	Plantwide emissions, lb/hr	Percent less than or equal to	AP-42 Table 11.6-5 (reference only)	PM, range	Plantwide emissions, lb/hr	Percent in range	PM_{10} Only, lb/hr	Percent in range	PM Condensible	PM_{10} Total	Percent in range
PM(TSP)	104.59	100									
PM_{20}	104.59	100	100	PM_{15}-PM_{20}	14.92	14.3					
PM_{15}	89.66	85.7	89	PM_{10}-PM_{15}	6.78	6.5					
PM_{10}	82.88	79.2	84	PM_{5}-PM_{10}	7.51	7.2	7.51	9.1		7.51	6.1
PM_{5}	75.37	72.1	77	$PM_{2.5}$-PM_{5}	34.33	32.8	34.33	41.4		34.33	27.9
$PM_{2.5}$	41.04	39.2	45	$PM_{0.5}$-$PM_{2.5}$	41.04	39.2	41.04	49.5	40.00	81.04	66.0
				Total	104.59	100.0	82.88	100.0	40.00	122.88	100.0

Notes

PM, PM10, and PM2.5 are calculated plantwide hourly emissions from Carolinas Cement potential emission inventory

PM15 and PM5 emissions are interpolated values adjusted using data in AP-42 Table 11.6-5 (Average Particle Size Distribution for Portland Cement Kilns)