Table IIA-1
ASH GROVE CEMENT COMPANY, SEATTLE PLANT
2006
IDENTIFICATION OF NON-FUGITIVE SOURCES AND CALCULATION OF EMISSION FACTORS

ASH GROVE Seattle Plant Unit Id.	Equipment Number	PSCAA Point Number	Control Equipment Number	Plant Location	Design Capacity, acfm	Year Installed	Pollutant	Potential Emissi-ons(1) kg/hr	Max. Design Mg/hr	Process Quantity Type	Emission Factor kg/Mg	Process Quantity Type	Process Quantity Mg/year 2002	Contaminant kg/year 2002
KN	41B.BF3	1	34	#1 COAL MILL	10400	1990	PM	0.202	10	Coal (wet) to Mill # 1	2.03E-02	Coal (wet) to Mill # 1	37202	754
							CO	(2)	(2)	"	(3)	"	37202	50119
							NOx	(2)	(2)	"	(3)	"	37202	50234
							SO2	(2)	(2)	"	(3)	"	37202	1691
	41B.BF4	1	34	#2 COAL MILL	10400	1990	PM	0.202	10	Coal (wet)to Mill # 2	2.03E-02	Coal (wet)to Mill # 2	37202	754
							CO	(2)	(2)	"	(3)	"	37202	50119
							NOx	(2)	(2)	"	(3)	"	37202	50234
							SO2	(2)	(2)	"	(3)	"	37202	1691
	413.BF1	6	15	MAIN BAGHOUSE	n/a	1990	PM	(2)	(2)	Clinker from Kiln	4.14E-02	Clinker from Kiln	608607	25196
							CO	(1)	(1)	"	(1)	"	608607	1102248
							NOx	(1)	(1)	"	(1)	"	608607	1104788
							SO2	(1)	(1)	"	(1)	"	608607	37195
RM	312BF1	3	22	TRANSFER TOWER 8	5320	1990	PM	0.104	268	Clay+Steel Scale+Silica + Bottom As	3.87E-04	Clay+Steel Scale+Silica + Bottom	239259	93
NotOpr	316.BF1	21	40	FLY ASH D/C	750	1994	PM	0.015	27	Fly Ash rec'd	5.36E-04	Fly Ash rec'd	0	0
	311.BF2	3	36	TRANSFER TOWER 3/4	4800	1990	PM	0.093	284	Limestone rec'd	3.29E-04	Limestone rec'd	747412	246
NotOpr	311.BF1	3	18	STACKER	2000	1990	PM	0.039	1021	Limestone rec'd	3.81E-05	Limestone rec'd	0	0
	311.BF3	3	19	TRANSFER TOWER 5	3800	1990	PM	0.074	284	Limestone rec'd	2.60E-04	Limestone rec'd	747412	195
	311BF4	3	24	331 L.S./CLAY/Bot Ash BINS	10600	1990	PM	0.206	222	Limestone+Clay +Bot Ash rec'd	9.28E-04	Limestone+Clay +Bot Ash rec'd	771599	716
	311.BF5	3	20	TRANSFER TOWER 6	9350	1990	PM	0.182	284	Limestone+Clay + Bottom Ash rec'd	6.41E-04	Limestone+Clay + Bottom Ash rec'	771599	494
NotOpr	41B.BF2	3	33	COAL FEEDER #2	1150	1990	PM	0.022	10	Coal (wet) used in Mill #2	2.24E-03	Coal (wet) used in Mill #2	37202	83
	41A.BF3	3	28	COAL SILO	1300	1990	PM	0.025	181	Coal rec'd	1.39E-04	Coal rec'd	75997	11
NotOpr	41B.BF1	3	33	COAL FEEDER #1	1150	1990	PM	0.022	10	Coal (wet) used in Mill #1	2.24E-03	Coal (wet) used in Mill #1	0	0
	41A.BF2	3	27	TRANSFER TOWER 5	3050	1990	PM	0.059	227	Coal (wet) rec'd	2.62E-04	Coal (wet) rec'd	75997	20
NotOpr	315.BF1	3	25	TRANSFER TOWER 7	2400	1990	PM	0.047	222	Total Raw Material used	2.10E-04	Limest+clay+silica+iron+FlyAsh	0	0
	313.BF1	3	23	331 STEEL&SILICA BINS	11550	1990	PM	0.225	268	Steel Scale+Silica used	8.40E-04	Steel Scale+Silica used	210195	177
KF	41C.BF1	20	35	PF BIN	1250	1990	PM	0.024	16	Coal (pulverized) produced	1.49E-03	Coal (pulverized) produced	69197	103
	411.BF1	5	31	BLEND SILOS (W)	8324	1990	PM	0.162	227	1/2 Kiln Feed produced	7.14E-04	1/2 Kiln Feed produced	462550	330
	413.BF3	3	29	KILN FEED BLD	7600	1990	PM	0.148	207	Kiln Feed produced	7.15E-04	Kiln Feed produced	925139	661
	317.BF1	3	30	BLEND SILOS (E)	8000	1990	PM	0.156	227	1/2 Kiln Feed produced	6.86E-04	1/2 Kiln Feed produced	462550	317
	413.BF2	8	39	SORBENT SYS. D/C	750	1993	PM	0.015	27	Sorbent rec'd	5.36E-04	Sorbent rec'd	0	0
CK	419.BF1	3	32	G-COOLER	20600	1990	PM	0.401	167	Clinker, 100 % produced.	2.40E-03	Clinker, 100 % produced.	608607	1461
NotOpr	419.FN7	10	2	CLINKER SILOS -Top(SW)	3864	1968	PM	0.075	227	Clinker, 0 % prod.+rec'd.	3.31E-04	Clinker, 0 % prod.+rec'd.	0	0
	511.BF1	3	4	CLINKER SHED ELEV.	5000	1968	PM	0.097	227	Clinker, 15 % prod.+rec'd.	4.29E-04	Clinker, 15 % prod.+rec'd.	91291	39
	511.BF8			CLINKER SHED	20000	2002	PM	0.389	227	Clinker, 15 % prod.+rec'd.	1.72E-03	Clinker, 15 % prod.+rec'd.	91291	157
	419.FNC	10	14	CLINKER SILOS-Top(N-center)	6000	1968	PM	0.117	167	Clinker, 85 % prod.+rec'd.	6.99E-04	Clinker, 85 % prod.+rec'd.	517316	362
	419.FN5	10	2	CLINKER SILOS-Top(S-center)	3864	1968	PM	0.075	227	Clinker, 60% prod.+ 66% Gyp rec'd.	3.31E-04	Clinker, 60% prod.+ 66% Gyp rec'd	391010	130
	511.FN8			CLINKER SILOS-Bot(E)	1770	1968	PM	0.034	227	Clinker, 85% prod.+ 50% Gyp used	1.52E-04	Clinker, 85% prod.+ 50% Gyp used	542736	82
	419.FN9	10	2	CLINKER SILOS-Top(SE)	3864	1968	PM	0.075	167	Clinker, 30% prod.+33% Gyp rec'd.	4.50E-04	Clinker, 30% prod.+33% Gyp rec'd.	195505	88
	511.FN6			CLINKER SILOS BOT(W)	1770	1968	PM	0.034	227	Clinker, 40% prod.+ 50% Gyp used	1.52E-04	Clinker, 40% prod.+ 50% Gyp used	268863	41
	419.FZ3	9	38	CLINKER SILOS-Top(NE)	5800	1990	PM	0.113	167	Clinker, 100 % prod.+rec'd.	6.76E-04	Clinker, 100 % prod.+rec'd.	608607	411
	41G.BF1	15	41	CLINKER LOADOUT D/C	1000	1994	PM	0.019	227	Clinker, shipped	8.58E-05	Clinker, shipped	3848	0.3
NotOpr	611.BF7	18	10	SS TANKS LOADING	1716	1960	PM	0.033	181	Cement, 6% prod.+rec'd.	1.84E-04	Cement, 6% prod.+rec'd.	0	0
CM	610.BF2			GP2 SILO 19	4200	2002	PM	0.082	59	Cement, 47 % prod.+rec'd.	1.39E-03	Cement, 47 % prod.+rec'd.	316313	329
	515.BF1	12	42	FM #1 MILL SWEEP D/C	20000	1994	PM	0.280	59	Cement, 50 % prod.	4.75E-03	Cement, 50 % prod.	336503	1599
	610.BF1			GP2 TRANSFER BIN	3864	1968	PM	0.075	100	Cement, 3 % prod.+rec'd.	7.53E-04	Cement, 3 % prod.+rec'd.	20190	15
	610.BF3			GP2 SILO 17	4200	2002	PM	0.082	59	Cement, 47 % prod.+rec'd..	1.39E-03	Cement, 47 % prod.+rec'd..	316313	329
	525.BF1	12	42	FM #2 MILL SWEEP D/C	20000	1994	PM	0.280	59	Cement, 50 % prod.	4.75E-03	Cement, 50 % prod.	336503	1599
	611.BF2	15	7	GP2 RAIL LOAD	1770	1968	PM	0.034	145	Cement, 55 % prod.+rec'd.at GP2	2.37E-04	Cement, 55 % prod.+rec'd.at GP2	370153	88
NotOpr	611.BF3	16	8	GP1 SILO (N)	3200	1969	PM	0.062	59	Cement, 0.5 % prod.+rec'd.	1.06E-03	Cement, 0.5 % prod.+rec'd.	0	0
NotOpr	940.543	19	13	PACK HOUSE	4150	1969	PM	0.081	36	Cement, 0 % prod.+rec'd.	2.23E-03	Cement, 0 % prod.+rec'd.	0	0
	525.BF2	13	45	FM #2 SEPARATOR;	77000	1995	PM	0.599	59	Cement, 50 % prod.	1.02E-02	Cement, 50 % prod.	336503	3420
NotOpr	611.BF6	17	9	SS TANKS(Top)	6000	1999	PM	0.117	136	Cement, 20% prod.+rec'd.	8.58E-04	Cement, 20% prod.+rec'd.	0	0
	515.BF2	13	45	FM #1 SEPARATOR;	77000	1995	PM	0.599	59	Cement, 50 % prod.	1.02E-02	Cement, 50 % prod.	336503	3420
NotOpr	940.551	19	11	PACK HOUSE, MASONRY	8200	1928	PM	0.160	36	Cement, 0 % prod.+rec'd.	4.40E-03	Cement, 0 % prod.+rec'd.	0	0
NotOpr	611.BF4	16	5	GP1 SILO (S)	4150	1969	PM	0.081	54	Cement, 0.0 % prod.+rec'd.	1.48E-03	Cement, 0.0 % prod.+rec'd.	0	0
	611.BF1	15	7	GP2 TRUCK LOAD	1770	1968	PM	0.034	490	Cement, 40 % prod.+rec'd.at GP2	7.03E-05	Cement, 40 % prod.+rec'd.at GP2	269202	19
	612.BF1			CEMENT DOME	6000	1999	PM	0.117	118	Cement, 6 % prod.+rec'd.	9.90E-04	Cement, 6 % prod.+rec'd.	40380	40
	611.BK1			BULK BAG LOADING	500	2002	PM	0.010	9	Cement, 0.5 % prod.+rec'd.	1.07E-03	Cement, 0.5 % prod.+rec'd.	3365	4

Table IIA-2
ASH GROVE CEMENT COMPANY, SEATTLE PLANT
2006 FOR EMISSION STATEMENT
SUMMARY OF DATA

Ash Grove Unit	PSAPCA Point	PSAPCA Segment	Megagram 2006	Tons 2006	Pounds 2006	Pounds 2006
			PM	PM	PM10	PM2.5
KN	1	01	25	27.774	55547	51659
	1	02	2	1.663	3326	1996
RM	2	01	2	2.242	4484	2690
KF	3	01	1	1.557	3113	1868
CK	4	01	3	3.055	6110	3666
CM	5	01	11	11.971	23943	14366
Total			44	48		
KN	1	01	1102	1215	2430000	
	1	02	100	110	220983	
RM	2	01	0	0	0	
KF	3	01	0	0	0	
CK	4	01	0	0	0	
CM	5	01	0	0	0	
Total			1202	1325		
KN	1	01	1105	1218	2435600	
	1	02	100	111	221492	
RM	2	01	0	0	0	
KF	3	01	0	0	0	
CK	4	01	0	0	0	
CM	5	01	0	0	0	
Total			1205	1329		
KN	1	01	37	41	82000	
	1	02	3	4	7457	
RM	2	01	0	0	0	
KF	3	01	0	0	0	
CK	4	01	0	0	0	
CM	5	01	0	0	0	
Total			41	45		

Table IIA-3
2006 FOR EMISSION STATEMENT
RAW MATERIAL, PRODUCTION and SHIPPING

PSAPCA KN LIMIT tons/yr	2006	DATA 2006				
	Totals		TONS			
PM10	tons	Stuff	(input)	Mg	kg	lbs
46	48	CO	12550	1102.25	1102248.00	2430000.00
CO	tons	NOx	12704	1104.79	1104788.16	2435600.00
2353	1325	SOx	410	37.20	37195.20	82000.00
	lbs					
	2650983					
NOx	tons					
1846	1329					
	lbs					
	2657092					
SO2	tons					
176	44.7					
	lbs					
	89457					

POINT	MATERIAL	RECEIVED TONS	RECEIVED Mg	USED TONS	USED Mg	PRODUCED TONS	PRODUCED Mg	SHIPPED TONS	SHIPPED Mg
		(input)	(calc)	(input)	(calc)	(input)	(calc)	(input)	(calc)
1	COAL	83779	75997	82036	74405				
2	CLAY	1061	963	1061	963				
	IRON	32354	29333	32562	29540				
	SILICA +ERI+ JHBP Chips	204236	185738	198754	180654				
	LIMESTONE	823895	747412	798503	722588				
	GYPSUM + L/S	43967	39161	56049	50839				
	FLYASH		0		0				
	BOTTOM ASH	25586	23212	25690	23224				
3	KILN FEED			1017980	923512	1039773	925100		
	HYDRATED LIME	0	0	43	39				
4	CLINKER	4242	3848	685809	622166	670863	608607	4242	3848
5	CEMENT	0	0			741849	673005	731034	663194
FM#2	FLYASH-1PM				0		0		

		Tons			
point 002	Total RM	1085300	cl prod.	608607	8760
point 003	Total KF	1018023	cl/hr	85.0954	
point 004	Total CK	670863	emis rate kg/hr	1.13	
point 005	Total CM	741849	kg/Mg clinker	0.01328	

		PM10	PM2.5	lbs.2.5
KN	1	55547	0.077 lbs per ton clinker	51656
	1	3326	0.6 x coal pm10	1996
RM	2	4484	0.6 x RM pm10	2690
KF	3	3113	0.6 per ton KF	1868
CK	4	6110	0.6 per ton clinker	3666
CM	5	23943	0.6 per ton cement	14366

SEA0199

AGCS2M001929

SEATTLE PLANT

12/31/06

	RECEIVED / PRODUCED			USED / SHIPPED			
	DAY	MONTH	YEAR	DAY	MONTH	YEAR	INVENTORY
RAW MATERIALS							
LIMESTONE		67,028	816,335	2,371	58,001	788,971	30,582
LIME FINES		0	7,532	(75)	0	7,532	0
BOTTOM ASH		1,293	25,586	(640)	1,343	25,600	221
CASTLE ROCK CLAY		0	1,061	#REF!	0	1,061	0
PORT HARDY SILICA		10,141	129,112	117	5,636	122,948	10,560
ERI (RECYCLED)		5,407	67,305	#REF!	5,249	67,864	1,138
JHBP CHIPS		1,220	8,322	#REF!	1,220	8,322	0
COMINCO SLAG		638	4,318	389	722	4,178	395
HECKET SLAG		747	20,246	#REF!	831	20,614	395
HECKET MILL SCALE		0	6,358	#REF!	0	6,358	0
KLEEN BLAST SLAG		35	1,412	0	35	1,412	0
HYDRATED LIME		0	0	748	0	43	22
RAW MATERIAL SALES							
3/4" LIMESTONE SALES		11,915	93,023		3,039	85,859	14,809
BLAST FURNACE SLAG		(596)	(596)	0	0	0	0
KILN FEED							
TYPE I/II	1,959	70,480	1,017,980	5,630	69,200	1,019,731	3,684
FUELS (TONS)							
GAS (Tons)				#REF!	153	806	
COAL (Tons)	0	9,234	83,771	#REF!	5,427	82,016	9,019
TDF (Tons)				543	242	6,070	0
TDF Weight Percent				#REF!	4.2%	6.8%	
FUELS (NET HEAT VALS)	Fuel Usage Rate			Fuel Usage (MMBTU)			
GAS (MMBTU Net)	#REF!	5.6%	1.9%	#REF!	6,702	35,321	
COAL (MMBTU Net)	#REF!	89.1%	89.6%	0	107,507	1,706,419	
TDF (MMBTU Net)	#REF!	5.4%	8.6%	0	6,516	163,149	
TOTAL (MMBTU Net)				#REF!	120,725	1,904,889	
MMBTU/Ton					2.85	2.84	
CLINKER							
PRODUCTION	17,654	42,311	670,863	#REF!	45,414	685,809	3,148
SALES / RECEIVALS	0	0	0	0	0	4,242	
CEMENT ADDITIVES							
LIMESTONE				116	487	18,944	
GYPSUM	318	4,843	43,167	2,905	2,693	37,096	8,865
GRINDING AID (Lbs)	0	44,885	483,343	#REF!	31,280	483,522	48,977
CEMENT							
TYPE I-II	#REF!	48,653	711,102	435	40,992	701,796	41,003
TYPE III	#REF!	0	30,157	0	1,332	28,647	2,296
TYPE CG	#REF!	(59)	591	69	0	591	0
TOTAL PRODUCED	#REF!	48,594	741,849	504	42,323	731,034	
TOTAL RECEIVED	0	0	0	228	0	0	
GRAND TOTAL	#REF!	48,594	741,849	733	42,323	731,034	43,299