

US EPA ARCHIVE DOCUMENT

Data Summary: Cement Kilns, PCDD/PCDF

1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20		
2	Source ID	Cond ID	Facility Information		Combustor Information			APCS	Dry	Waste	Short	ILRM	Haz	Munitions	Chemical	Mixed	Comm	Gov't		
3	Number	Number	Facility Name	City	Combustor	Combustor	Combustor	Detailed	vs Wet	Heat	Kiln	Status	Wastes	Popping	Weapons	Radioactive	vs On-site		Cond	
4					Category	Class	Type	Acronym	APCS	Boiler				Furnace	Demil	Waste			Dates	
5																				
6	203	203C11	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln Long, Wet		ESP	Dry	No	No		Liq	No	No	Comm	No		5/1/2000	
7	203	203C5	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln Long, Wet		ESP	Dry	No	No		Liq	No	No	Comm	No		8/16/1996	
8	203	203C1	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln Long, Wet		ESP	Dry	No	No		Liq	No	No	Comm	No		7/19/1993	
9	204	204C9	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		2/1/1996	
10	204	204B2	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		5/1/1996	
11	204	204B1	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		2/1/1996	
12	204	204C8	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		5/18/1994	
13	204	204C5	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		5/18/1994	
14	204	204C7	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		5/18/1994	
15	204	204C6	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		5/18/1994	
16	204	204C2	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		4/1/1992	
17	204	204C3	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liquid	No	No	Comm	No		4/1/1992	
18	207	207C11	Keystone	Bath	Cement kiln	Cement kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		12/1/1999	
19	207	207C12	Keystone	Bath	Cement kiln	Cement kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		8/1/2000	
20	207	207C10	Keystone	Bath	Cement kiln	Cement kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		9/1/1998	
21	207	207C3	Keystone	Bath	Cement kiln	Cement kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		1/1/1997	
22	207	207C1	Keystone	Bath	Cement kiln	Cement kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		1/1/1993	
23	208	208C11	Keystone	Bath	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		12/1/1999	
24	208	208C10	Keystone	Bath	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		9/1/1998	
25	208	208C3	Keystone	Bath	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		10/1/1996	
26	208	208C1	Keystone	Bath	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No		7/1/1992	
27	228	228C11	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		1/1/1998	
28	228	228C5	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		10/1/1993	
29	228	228C4	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		7/1/1993	
30	228	228C3	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		1/1/1992	
31	300	300C11	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		10/1/1998	
32	300	300C10	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		10/1/1998	
33	300	300C13	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		10/1/1998	
34	300	300C12	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		10/1/1998	
35	300	300C3	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		7/28/1993	
36	300	300C2	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No		5/20/1992	
37	302	302C12	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No		5/1/1998	
38	302	302C10	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No		5/1/1998	
39	302	302C11	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No		5/1/1998	
40	302	302C5	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No		8/1/1994	
41	303	303C7	LONE STAR INDUSTRIE:CAPE GIRAI		Cement kiln	Cement Kiln Dry, preheater, QC/FF main, FF by		Dry	No	Yes	off		Liq, sludge	No	No	Comm	No		10/1/1995	
42	303	303C9	LONE STAR INDUSTRIE:CAPE GIRAI		Cement kiln	Cement Kiln Dry, preheater, QC/FF main, FF by		Dry	No	Yes	on		Liq, sludge	No	No	Comm	No		10/1/1995	
43	303	303C8	LONE STAR INDUSTRIE:CAPE GIRAI		Cement kiln	Cement Kiln Dry, preheater, QC/FF main, FF by		Dry	No	Yes	on		Liq, sludge	No	No	Comm	No		10/1/1995	
44	303	303C5	LONE STAR INDUSTRIE:CAPE GIRAI		Cement kiln	Cement Kiln Dry, preheater, QC/FF main, FF by		Dry	No	Yes	on		Liq, sludge	No	No	Comm	No		9/1/1993	
45	303	303C4	LONE STAR INDUSTRIE:CAPE GIRAI		Cement kiln	Cement Kiln Dry, preheater, QC/FF main, FF by		Dry	No	Yes	on		Liq, sludge	No	No	Comm	No		9/1/1993	
46	319	319D7	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1996	
47	319	319D8	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		6/1/1996	
48	319	319D9	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		9/1/1996	
49	319	319D5	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		12/1/1994	
50	319	319D1	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		12/1/1994	
51	319	319D4	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		12/1/1994	
52	319	319D3	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		12/1/1994	
53	319	319D2	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		12/1/1994	
54	319	319B1	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		4/1/1994	
55	319	319C9	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		1/1/1994	
56	319	319B4	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1993	
57	319	319B3	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1993	
58	319	319B6	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1993	
59	319	319B5	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1993	
60	319	319B2	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		7/1/1993	
61	319	319C2	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No		5/5/1992	

Data Summary: Cement Kilns, PCDD/PCDF

	2	21	28	30	31	32	33	34	35	36	37	38	39	40	41	42	57	58		
2	Cond ID	Condition Information	APCD	D/F Emissions			PCDD/PCDF TEQ (ng/dscm)													
3	Number	Cond Description	Temp	Campaign	Rating	Rating Comments	R1		R2		R3		R4		R5		Cond	Avg		
4			Cond Avg	Number			ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss		
6	203C11	CoC: Min comb temp. max feed rate, max ESP ten	501		1	CT	0	1.7790	0	2.0901	0	4.2145					0	2.6946		
7	203C5	CoC, MAX COMB ZONE TEMP, MAX METALS/CI	485		2	CT	3	0.4254	3	0.4712	4	0.4745					3	0.4570		
8	203C1	CoC, MAX HW FEED	383		3	CT	0	1.9447	0	7.6364	0	5.6024					0	5.0612		
9	204C9	CoC, MAX GAS FLOW RATE, MAX CHLORINE FI	615		1	CT	0	6.5180	0	7.1724	0	5.7612					0	6.4839		
10	204B2	NORMAL KILN OPERATING CONDITIONS	480		1	N	0	0.7248	0	0.4858	0	1.1415					0	0.7840		
11	204B1	CoC, DRE, MIN COMB ZONE TEMP, MAX HWDF	580		1	IB	0	4.7866	0	3.1453	0	3.7128					0	3.8816		
12	204C8	WATER INJECTION research testing			2	NA		Not evaluated: research testing		0	0.0784						0	0.0784		
13	204C5	NORMAL operating conditions			2	N		0	0.9900	0	0.9519	0	1.4734				0	1.1385		
14	204C7	LOW CL research testing			2	NA		Not evaluated: research testing		0	1.8718	0	0.9372	0	1.2316		0	1.3469		
15	204C6	LOW SULFUR FUEL research testing			2	NA		Not evaluated: research testing		0	2.0304	0	2.4584	0	2.0486		0	2.1791		
16	204C2	CoC, MAX COMB TEMP	597		3	CT	74	0.2764	56	0.3876	13	0.7506					37	0.4715		
17	204C3	BASELINE, no hazardous waste firing, MAX COME	596		3	NA		Not evaluated: not burning hazardous was		3	1.7892	11	0.7474	14	0.7528		7	1.0965		
18	207C11	Trial burn; Low temp POHC DRE, PCDD/PCDF			1	CT	4	1.1149	96	0.0621	0	0.8552					5	0.6774		
19	207C12	CoC, max metals, waste, slurry	494		1	IB	45	0.0079	13	0.0445	49	0.0082					22	0.0202		
20	207C10	CoC; max metals, chlorine, waste, slurry, min ESP	440		2.5	CT	47	0.0107	75	0.0170	42	0.0120					57	0.0132		
21	207C3	purpose of testing not clear			3	NA		Unknown APCD temp and purpose of test		0	0.0520	2	0.0178	1	0.0263			0	0.0320	
22	207C1	CoC, MAX PROD, MAX TIER III SPIKE, MAX SLU	419		4	CT	74	0.0162	63	0.0159	61	0.0156					66	0.0159		
23	208C11	TB, low temp, POHC DRE			1	CT	51	0.0754	0	0.7107	97	0.1856					23	0.3239		
24	208C10	CoC; max metals, chlorine, waste, slurry, min ESP	400		1	IB	100	0.0055	3	0.0304	70	0.0059					25	0.0140		
25	208C3	purpose of test not clear			2	NA		Unknown APCD temp and purpose of test		31	0.0245	81	0.0205	1	0.0889		19	0.0446		
26	208C1	CoC, MAX PROD, MAX TIER III SPIKE, MAX SLU	410		3	CT	12	0.0056	24	0.0045	18	0.0031					17	0.0044		
27	228C11	D/F test at max APCD temp and max CO, APCD worst case			1	CT		0	0.0833	0	0.0916	0	0.0357					0	0.0702	
28	228C5	TO STUDY THE FORMATION OF DIOXINS/FURAN	395		2	NA		Not evaluated: research testing		0	0.0447	0	0.3695					0	0.2071	
29	228C4	DRE, LOW COMB TEMP/DRE TEST	381		3	IB	80	0.0780	53	0.0735	13	0.2072					36	0.1196		
30	228C3	CoC, APCD TEMP > 450	460		4	CT		0	0.5516	0	0.2178	0	0.3692					0	0.3795	
31	300C11	CoC; Max operating temp, max temp, feedrates	563		1	CT		0	0.4026	0	1.2918	0	2.4777					0	1.3907	
32	300C10	CoC; Min temp, max CO, POHC DRE, min ESP pc	466		1	IB		0	0.7791	0	1.1095	0	0.7138					0	0.8675	
33	300C13	Risk burn, normal operations	486		1	N		0	0.7921	0	0.8397	0	1.4831					0	1.0383	
34	300C12	Risk burn, normal operations	502		1	N		0	1.0022	0	1.1088	0	1.5220					0	1.2110	
35	300C3	?			2	IB			1.1333		1.2738		1.2984					0	1.2352	
36	300C2	CoC, HIGH COMB TEMP	608		3	CT		0	6.6347	0	12.8767	0	11.1822	0	0.#####			0	10.9728	
37	302C12	Risk burn, normal operations	403		1	CT		0	0.1951	0	0.3531	0	0.2713					0	0.2732	
38	302C10	CoC; high temperature, max metals, prod rate, wa	370		1	IB		0	0.1718	0	0.0926	0	0.1369					0	0.1338	
39	302C11	CoC; low temperature	404		1	IB		0	0.2432	0	0.2417	0	0.3023					0	0.2624	
40	302C5	DIOXIN/FURAN EMISSIONS TESTING			2	NA		Not evaluated: APCS since modified		1	0.0477	0	0.0724	0	0.2058			0	0.1086	
41	303C7	Trial burn, HIGH COMB TEMP, IN-LINE RAW MILI330 m / 44			1	CT		0	0.8751	0	0.6948	0	0.7686	0	2.3385			0	1.1693	
42	303C9	NORMAL OPERATING CONDITIONS	180 m / 42		1	N		ILRM on		36	0.0051	31	0.0080	17	0.0078			27	0.0070	
43	303C8	Trial burn, LOW COMB TEMP	190 m / 43		1	CT		ILRM on		15	0.0108	10	0.0146	36	0.0093			19	0.0116	
44	303C5	COAL ONLY, IN-LINE RAW MILL ON			2	NA		Not evaluated: not burning hazardous was		90	0.0170	100	0.0221	87	0.0104			94	0.0165	
45	303C4	COAL AND HWF COMBINATION, IN-LINE RAW MILL ON			2	NA		Not evaluated: research testing		69	0.0123	91	0.0145	91	0.0366			87	0.0211	
46	319D7	TB, MAXIMUM BURNING ZONE CONDITIONS	600		2	CT			1.3600		1.6700		1.1600						1.3967	
47	319D8	TB, DRE, MINIMUM BURNING ZONE CONDITION	550		2	IB			0.5470		0.5610		0.6200						0.5760	
48	319D9	TB, NORMAL OPERATING CONDITIONS	560		2	N			1.1000		1.4800		0.5370						1.0390	
49	319D5	SULFUR ADDITION			3	NA		Not evaluated: research testing		0	0.1443	9	0.0427	0	0.2961			1	0.1610	
50	319D1	BASELINE			3	N			0	0.2207	0	0.3380	0	0.3449				0	0.3012	
51	319D4	WATER SPRAY/ NO INSUFFLATION			3	NA		Not evaluated: research testing		0	0.3107	0	0.3238	0	0.2876			0	0.3074	
52	319D3	WATER SPRAY			3	NA		Not evaluated: research testing		1	0.3209	0	0.4699	0	0.4269			0	0.4059	
53	319D2	CARBON INJECTION			3	NA		Not evaluated: research testing		0	0.3833	0	1.7591	0	0.3245			0	0.8223	
54	319B1	PCDD/PCDF diagnostic testing	462		4	N			0	0.3917	0	0.4756	0	0.3139	0	0.3207	0	0.3280	0	0.3442
55	319C9	Demo testing	426		5	N			0	0.2009	0	0.1479	0	0.1053	0	0.1783	0	0.1518	0	0.1595
56	319B4	NORMAL OPERATION			6	NA		Not evaluated: research testing		0	0.0945	0	0.0465	0	0.0510			0	0.0640	
57	319B3	NORMAL OPERATION			6	NA		Not evaluated: research testing		0	0.2595	0	0.1382	0	0.0900			0	0.1626	
58	319B6	NORMAL OPERATION			6	NA		Not evaluated: not burning hazardous was		0	0.6293	1	0.6965	1	0.5794			0	0.6351	
59	319B5	NORMAL OPERATION			6	NA		Not evaluated: research testing		0	0.3347	0	0.5138	0	1.2829			0	0.7105	
60	319B2	NORMAL OPERATION			6	N			0	0.8245	0	1.0683	0	1.1442					0	1.0123
61	319C2	CoC, HIGH COMB TEMP	593		7	CT			0	25.8250	0	14.6964	0	18.6057					0	19.7090

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2	Source ID	Cond ID	Facility Information		Combustor Information			APCS	Dry	Waste	Short	ILRM	Haz	Munitions	Chemical	Mixed	Comm	Gov't	
3	Number	Number	Facility Name	City	Combustor	Combustor	Combustor	Detailed	vs Wet	Heat	Kiln	Status	Wastes	Popping	Weapons	Radioactive	vs On-site	Cond	
4					Category	Class	Type	Acronym	APCS	Boiler			Furnace	Demil	Waste			Dates	
5																			
62	319	319B9	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No	10/23/1991	
63	319	319C5	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No	6/1/1990	
64	319	319C7	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No	7/1/1990	
65	319	319C6	CONTINENTAL CEMENT HANNIBAL		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge, sc	No	No	Comm	No	6/1/1990	
66	322	322C8	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	9/1/1995	
67	322	322C9	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	9/1/1995	
68	322	322C2	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/1/1994	
69	322	322C4	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/9/1993	
70	322	322C6	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/9/1993	
71	322	322C5	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/9/1993	
72	322	322C7	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/9/1993	
73	322	322C1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	5/1/1992	
74	323	323B2	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	2/1/1995	
75	323	323B1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	2/1/1995	
76	323	323C9	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	2/1/1995	
77	323	323B3	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	9/1/1995	
78	323	323B4	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	9/1/1995	
79	323	323C4	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/1/1994	
80	323	323C2	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/1/1994	
81	323	323C3	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/1/1994	
82	323	323C5	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	6/1/1994	
83	323	323C6	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	7/1/1994	
84	323	323C7	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	7/1/1994	
85	323	323C1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, sludge	No	No	Comm	No	5/1/1992	
86	403	403C10	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq and solid	No	No	Comm	No	12/1/1997	
87	403	403C11	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq and solid	No	No	Comm	No	12/1/1997	
88	403	403C4	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq and solid	No	No	Comm	No	11/1/1994	
89	403	403C3	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq and solid	No	No	Comm	No	11/1/1994	
90	403	403C1	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq and solid	No	No	Comm	No	5/1/1992	
91	404	404C10	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/1/1998	
92	404	404B1	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/1/1995	
93	404	404C9	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/1/1995	
94	404	404C3	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/17/1995	
95	404	404C5	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/17/1995	
96	404	404C4	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	1/17/1995	
97	404	404C6	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	10/1/1993	
98	404	404C1	Ash Grove Cement Comp: Foreman		Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	7/1/1992	
99	491	300C11	Essroc	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	10/1/1998	
100	491	491C2	Essroc Corporation	Logansport	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq, solid	No	No	Comm	No	5/1/1995	
101	3029	3029C10	Lone Star	Greencastle	Cement kiln	Cement Kiln Semi-dry, short	ESP (main), FF (bypass)				Yes	on	Liq	No	No	Comm	No	9/12/2000	
102	3030	3030C1	TXI	Midlothian	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No	3/1/2001	
103	302A	302C12	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No	5/1/1998	
104	302A	302C10	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No	5/1/1998	
105	302A	302C11	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No	5/1/1998	
106	302A	302C5	Lafarge	Paulding	Cement kiln	Cement Kiln Wet, long		FF	Dry	No	No		Liq	No	No	Comm	No	8/1/1994	
107	3031	3031C3	ASH GROVE CEMENT C/CHANUTE		Cement kiln	Cement Kiln Preheater/prec	FF (main), FF (bypa	Dry	No	Yes	off		No	No	No	Comm	No	3/1/2002	
108	3031	3031C2	ASH GROVE CEMENT C/CHANUTE		Cement kiln	Cement Kiln Preheater/prec	FF (main), FF (bypa	Dry	No	Yes	off		No	No	No	Comm	No	3/1/2002	
109	3031	3031C1	ASH GROVE CEMENT C/CHANUTE		Cement kiln	Cement Kiln Preheater/prec	FF (main), FF (bypa	Dry	No	Yes	on		No	No	No	Comm	No	12/1/2001	
110																			
111																			
112																			
113	Sources Shutdown or No Longer Burning Hazardous Wastes																		
114	205	205C11	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No	1/1/2000	
115	205	205C8	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No	5/1/1995	
116	205	205C3	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No	7/1/1992	
117	205	205C4	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln Wet, long		ESP	Dry	No	No		Liq	No	No	Comm	No	7/1/1992	

Data Summary: Cement Kilns, PCDD/PCDF

	2	21	28	30	31	32	33	34	35	36	37	38	39	40	41	42	57	58
2	Cond ID	Condition Information	APCD	D/F Emissions			PCDD/PCDF TEQ (ng/dscm)											
3	Number	Cond Description	Temp	Campaign	Rating	Rating Comments	R1		R2		R3		R4		R5		Cond	Avg
4			Cond Avg	Number			ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss
5																		
62	319B9	?			8 IB		2	5.2799	1	2.0182	0	2.6336					1	3.3106
63	319C5	BASELINE	443		9 NA	Not evaluated: not burning hazardous was	0	1.1484									0	1.1484
64	319C7	COAL PLUS DIESEL FUEL	475		9 NA	Not evaluated: not burning hazardous was	0	5.8225									0	5.8225
65	319C6	COAL PLUS WASTES (LIQUID & SOLID)	527		9 NA	Not evaluated: research testing	0	5.7357	0	9.3488							0	7.5422
66	322C8	CoC, MAXIMUM OPERATING CONDITIONS FOR	380		1 CT		0	0.1036	0	0.0551	5	0.0493					1	0.0693
67	322C9	CoC, MINIMUM COMBUSTION ZONE, DRE DEM	360		1 IB		11	0.0341	0	0.0887							3	0.0614
68	322C2	?	395		2 NA	Not evaluated: research testing	1	0.3050	8	0.0364							2	0.1707
69	322C4	COAL-FIRED BASELINE			3 NA	Not evaluated: not burning hazardous was	2	0.0851	7	0.0743							4	0.0797
70	322C6	WDLF-FIRED LOW TEMP			3 NA	Not evaluated: research testing	0	1.1709	0	1.1641							0	1.1675
71	322C5	WDLF-FIRED BASELINE			3 N		0	2.8038	0	5.9706							0	4.3872
72	322C7	WDLF-FIRED POTASH ADDITION			3 NA	Not evaluated: research testing	0	7.6125									0	7.6125
73	322C1	CoC, MAX PROD,MAX HW FEED,MAX COMB TE	538		4 CT		0	5.8981	0	2.5913	0	2.6767					0	3.7221
74	323B2	HIGH CHLORINE, LOW ESP INLET TEMPERATL	359		1 NA	Not evaluated: research testing	0	0.1124	0	0.0941	0	0.1015					0	0.1027
75	323B1	LOW CHLORINE, HIGH ESP INLET TEMPERATU	404		1 NA	Not evaluated: not burning hazardous was	0	0.3037	0	0.2858	0	0.1942					0	0.2612
76	323C9	HIGH CHLORINE, HIGH ESP INLET TEMPERATL	410		1 NA	Not evaluated: research testing	0	1.5047	0	1.8324	0	1.4738					0	1.6036
77	323B3	CoC, MAX OPERATING CONDITIONS	423		2 CT		0	0.0728	0	0.1097	0	0.1075					0	0.0967
78	323B4	CoC, OPERATING CONDITIONS AT MINIMUM TI	392		2 IB		0	0.0558	0	0.0839							0	0.0699
79	323C4	?	358		3 NA	Not evaluated: research testing	5	0.0345	6	0.0340							6	0.0343
80	323C2	?	353		3 NA	Not evaluated: not burning hazardous was	0	0.0335	6	0.0382							3	0.0359
81	323C3	?	355		3 NA	Not evaluated: research testing	2	0.0361	5	0.0376							3	0.0368
82	323C5	?	357		3 NA	Not evaluated: research testing	2	0.0304	5	0.0442							3	0.0373
83	323C6	LOW APCD TEMP	360		3 NA	Not evaluated: research testing	2	0.1389	2	0.1081							2	0.1235
84	323C7	HIGH APCD TEMP	400		3 NA	Not evaluated: research testing	1	0.4531	1	0.6103							1	0.5317
85	323C1	CoC, MAX PROD,MAX HW FEED,MAX COMB TE	491		4 CT		0	3.5950	0	9.3858	0	2.5565					0	5.1791
86	403C10	Trial burn: Max comb temp, max metals, chlorine, r	451		1 CT		0	0.2211	0	0.1658	0	0.2579	0	0.3542			0	0.2498
87	403C11	Trial burn: D/F test at max APCD temp and max Ct	404		1 IB		0	0.0395	0	0.2231	0	0.0752					0	0.1126
88	403C4	CoC, LOW COMB TEMP, HIGH HW FEED	375		2 IB		0	0.2102	0	0.1537	0	0.1229	0	0.0261			0	0.1282
89	403C3	CoC, HIGH COMB TEMP, HIGH CL FEED, HIGH I	431		2 CT		0	0.1041	0	0.0648	0	0.3339	0	0.1759			0	0.1697
90	403C1	CoC, HIGH COMB TEMP, MIN ESP POWER	494		3 CT		4	0.5032	1	12.6361	2	1.4991	21	0.6359			2	3.8186
91	404C10	Trial burn: Max comb temp, max metals, chlorine, r	462		1 CT		0	0.0330	0	0.0345	0	0.0520	0	0.1587			0	0.0696
92	404B1	NORMAL OPERATION, LOW KILN EXIT TEMP	385		2 NA	Not evaluated: research testing	0	0.1312	30	0.1243							15	0.1278
93	404C9	NORMAL OPERATION, HIGH KILN EXIT TEMP	472		2 NA	Not evaluated: research testing	14	0.4798	0	0.6737							6	0.5768
94	404C3	CoC, MAX FEED & CHLORINE, MIN. COMB. TEM	415		3 IB		0	0.0892	0	0.4470	0	0.0953	0	0.2974			0	0.2322
95	404C5	CoC, PM MEASUREMENT			3 N		0	0.7638	0	0.2239							0	0.4939
96	404C4	CoC, MAX FEED, PRODUCTION, CHLORINE, & (516		3 CT		0	0.8802	0	1.4896	0	5.0340	0	5.7559			0	3.2899
97	404C6	STUDY THE FORMATION OF DIOXINS & FURAN	457		4 NA	Not evaluated: research testing	0	0.8333	1	0.3062	0	0.3467	0	0.1557	0	0.0589	0	0.3401
98	404C1	CoC, HIGH COMB TEMP, MIN ESP POWER	499		5 CT		8	1.5497	8	0.9041	8	0.5988					8	1.0175
99	300C11	CoC; Max operating temp, max temp, feedrates	563		1 NA	PCDD/PCDF data from 300C11	0	0.4026	0	1.2918	0	2.4777					0	1.3907
100	491C2	CoC, MIN COMB TEMP, MAX CL FEED, MAX PROD RATE			2 IB	Unknown APCD temp and purpose of test		2.1790		1.3175		1.3567					0	1.6178
101	3029C10	Risk burn, max oper temp, normal wastes	400		1 CT		62	0.0075	100	0.0048	98	0.0056					86	0.0060
102	3030C1	Periodic air emissions evaluation			1 NA	Unknown APCD temp and purpose of test	7	0.0104	18	0.0091	12	0.0137					12	0.0110
103	302C12	Risk burn, normal operations	403		1 NA	Data in lieu	0	0.1951	0	0.3531	0	0.2713					0	0.2732
104	302C10	CoC; high temperature, max metals, prod rate, was	370		1 NA	Data in lieu	0	0.1718	0	0.0926	0	0.1369					0	0.1338
105	302C11	CoC; low temperature	404		1 NA	Data in lieu	0	0.2432	0	0.2417	0	0.3023					0	0.2624
106	302C5	DIOXIN/FURAN EMISSIONS TESTING			2 NA	Not evaluated: APCS since modified, data	1	0.0477	0	0.0724	0	0.2058					0	0.1086
107	3031C3	Comp Perf Test, raw mill off, PCDD/PCDF retest			1 CT	Unknown APCD temp; MACT New Source; dat		0.2290		0.1150		0.1360					0	0.1600
108	3031C2	Comp Perf Test, raw mill off			1 NA	Unknown APCD temp; MACT New Source; dat		0.2670		1.7000		1.0600		0.2420			0	0.8173
109	3031C1	Comp Perf Test, raw mill on			1 CT	Unknown APCD temp; MACT New Source; dat		0.0220		0.0600		0.0180		0.0190			0	0.0298
110																		
111																		
112																		
113	Shutdown or																	
114	205C11	Max APCD temp, max CO, max feed, min comb te	475		1 CT		3	0.0915	1	0.1266	1	0.1602					2	0.1261
115	205C8	NORMAL WASTE DERIVED FUEL FIRING			2 N			0.0162		0.0246		0.0399					0	0.0269
116	205C3	BASELINE, APCD TEMP > 450	470		3 NA	Not evaluated: not burning hazardous waste		0.0235		0.0152		0.0319					0	0.0235
117	205C4	CoC, APCD TEMP > 450	470		3 CT			0.0493		0.1733		0.3700					0	0.1975

Data Summary: Cement Kilns, PCDD/PCDF

	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	
2	Source ID	Cond ID	Facility Information		Combustor Information			APCS	Dry	Waste	Short	ILRM	Haz	Munitions	Chemical	Mixed	Comm	Gov't		
3	Number	Number	Facility Name	City	Combustor	Combustor	Combustor	Detailed	vs Wet	Heat	Kiln	Status	Wastes	Popping	Weapons	Radioactive	vs On-site		Cond	
4					Category	Class	Type	Acronym	APCS	Boiler				Furnace	Demil	Waste			Dates	
5																				
118	206	206C11	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	11/1/1999	
119	206	206C9	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	5/1/1995	
120	206	206C8	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	5/1/1995	
121	206	206C7	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	5/1/1995	
122	206	206C4	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	6/1/1992	
123	206	206C3	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	Dry	No	No		Liq	No	No	No	Comm	No	7/1/1992	

Data Summary: Cement Kilns, PCDD/PCDF

	2	21	28	30	31	32	33	34	35	36	37	38	39	40	41	42	57	58
2	Cond ID	Condition Information	APCD	D/F Emissions			PCDD/PCDF TEQ (ng/dscm)											
3	Number	Cond Description	Temp	Campaign	Rating	Rating Comments	R1		R2		R3		R4		R5		Cond Avg	
4			Cond Avg	Number			ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss
5																		
118	206C11	Max APCD temp, max CO, min DRE, min comb ter	520	1	CT		0	0.4171	0	0.5814	0	0.4327					0	0.4771
119	206C9	BASELINE, NO WASTE DERIVED FUEL, NORMAL APCD IN		2	NA	Not evaluated: not burning hazardous was	1	0.0256	58	0.0236	67	0.0189					39	0.0227
120	206C8	NORMAL WASTE DERIVED FUEL FIRING, LOW APCD TEM		2	NA	Not evaluated: research testing	17	0.0368	14	0.0417	1	0.0528					9	0.0438
121	206C7	NORMAL WASTE DERIVED FUEL FIRING		2	N		1	0.0684	0	0.1206	2	0.0933					1	0.0941
122	206C4	BASELINE, APCD TEMP > 450	450	3	NA	Not evaluated: not burning hazardous waste				0.0552		0.0252					0	0.0402
123	206C3	CoC, APCD TEMP > 450	530	3	CT			1.4297		2.0090		2.5081					0	1.9823