

US EPA ARCHIVE DOCUMENT

Data Summary: Cement Kilns, Low Volatile Metals

	1	2	3	4	5	6	7	8	11	12	13	15	16	17	18	19
2	Source ID	Cond ID	Facility Information		Combustor Information			APCS Detailed Acronym	Short Kiln	ILRM Status	Hazardous Wastes	Munitions Popping Furnace	Chemical Weapons Demil	Mixed Radioactive Waste	Comm vs On-site	Gov't
3	Number	Number	Facility Name	City	Combustor Category	Combustor Class	Combustor Type									
4																
5																
6	200	200C10	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
7	200	200C11	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
8	200	200C4	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
9	200	200C5	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
10	200	200C1	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
11	201	201C10	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
12	201	201C11	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
13	201	201C1	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
14	201	201C2	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
15	203	203C10	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln	Long, Wet	ESP	No		Liq	No	No	No	Comm	No
16	203	203C5	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln	Long, Wet	ESP	No		Liq	No	No	No	Comm	No
17	203	203C2	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln	Long, Wet	ESP	No		Liq	No	No	No	Comm	No
18	203	203C4	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln	Long, Wet	ESP	No		Liq	No	No	No	Comm	No
19	203	203C1	Holcim (US) Inc.	Artesia	Cement kiln	Cement Kiln	Long, Wet	ESP	No		Liq	No	No	No	Comm	No
20	204	204B2	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liquid	No	No	No	Comm	No
21	204	204B3	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liquid	No	No	No	Comm	No
22	204	204C1	Holcim (US) Inc.	Clarksville	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liquid	No	No	No	Comm	No
23	207	207C11	Keystone	Bath	Cement kiln	Cement kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
24	207	207C12	Keystone	Bath	Cement kiln	Cement kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
25	207	207C10	Keystone	Bath	Cement kiln	Cement kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
26	207	207C3	Keystone	Bath	Cement kiln	Cement kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
27	207	207C1	Keystone	Bath	Cement kiln	Cement kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
28	207	207C2	Keystone	Bath	Cement kiln	Cement Kiln	(Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
29	208	208C10	Keystone	Bath	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
30	208	208C11	Keystone	Bath	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
31	208	208C3	Keystone	Bath	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
32	208	208C1	Keystone	Bath	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
33	208	208C2	Keystone	Bath	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
34	228	228C12	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
35	228	228C2	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
36	228	228C6	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
37	228	228C7	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
38	300	300C11	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
39	300	300C13	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
40	300	300C2	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
41	300	300C6	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
42	300	300C7	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
43	302	302C10	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
44	302	302C12	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
45	302	302C3	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
46	302	302C1	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
47	303	303C7	LONE STAR INDUSTRIES, INC CAPE GIRARDEA	Cement kiln	Cement Kiln	Dry, preheater, QC/FF main, FF bypass			Yes	off	Liq, sludge	No	No	No	Comm	No
48	303	303C9	LONE STAR INDUSTRIES, INC CAPE GIRARDEA	Cement kiln	Cement Kiln	Dry, preheater, QC/FF main, FF bypass			Yes	on	Liq, sludge	No	No	No	Comm	No
49	303	303C1	LONE STAR INDUSTRIES, INC CAPE GIRARDEA	Cement kiln	Cement Kiln	Dry, preheater, QC/FF main, FF bypass			Yes	on	Liq, sludge	No	No	No	Comm	No
50	303	303C3	LONE STAR INDUSTRIES, INC CAPE GIRARDEA	Cement kiln	Cement Kiln	Dry, preheater, QC/FF main, FF bypass			Yes	off	Liq, sludge	No	No	No	Comm	No
51	303	303C6	LONE STAR INDUSTRIES, INC CAPE GIRARDEA	Cement kiln	Cement Kiln	Dry, preheater, QC/FF main, FF bypass			Yes	on	Liq, sludge	No	No	No	Comm	No
52	318	318C2	TEXAS INDUSTRIES, INC. MIDLOTHIAN	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq	No	No	No	Comm	No
53	318	473C1	Texas Industries Inc.	Midlothian	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
54	319	319D6	CONTINENTAL CEMENT COMI HANNIBAL	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq, sludge, sc	No	No	No	Comm	No
55	319	319D9	CONTINENTAL CEMENT COMI HANNIBAL	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq, sludge, sc	No	No	No	Comm	No
56	319	319D1	CONTINENTAL CEMENT COMI HANNIBAL	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq, sludge, sc	No	No	No	Comm	No
57	319	319D2	CONTINENTAL CEMENT COMI HANNIBAL	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq, sludge, sc	No	No	No	Comm	No
58	319	319C1	CONTINENTAL CEMENT COMI HANNIBAL	Cement kiln	Cement Kiln	Wet, long	ESP		No		Liq, sludge, sc	No	No	No	Comm	No
59	322	322C8	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
60	322	322C1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
61	323	323B1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No

Data Summary: Cement Kilns, Low Volatile Metals

	2	20	21	22	23	24	25	26	27	30	31	32	
2	Cond ID	Condition Information			Spiking			Tier			LVM Emissions		
3	Number	Cond	Cond Description	Cr	As	Be	Cr	As	Be	Campaign	Rating	Rating Comments	
4		Dates								Number			
6	200C10	9/1/1998	CoC, Max operating mode waste feed, temp, prod rate	Y			3	3	3		1	CT	
7	200C11	9/1/1998	CoC, Min dp on FF	Y			3	3	3		1	IB	
8	200C4	8/1/1995	CoC, MAX HW FIRING, MAX TIER III METALS SPIKING, MAX SLURRY FEED	Y			3	3	3		2	NA Uses older FF bags	
9	200C5	8/1/1995	CoC, MIN FF PRESSURE DROP	Y			3	3	3		2	NA Uses older FF bags	
10	200C1	8/21/1992	CoC, MAX HW FEED, SPIKED METAL, SPIKED CHLORINE	Y			3	3	3		3	NA Uses older FF bags	
11	201C10	6/1/1998	CoC, Max operating mode waste feed, temp, prod rate	Y			3	3	3		1	CT	
12	201C11	10/1/1998	CoC, Min dp on FF	Y			3	3	3		1	IB	
13	201C1	8/21/1992	CoC, MAX HW FEED, SPIKED METAL, SPIKED CHLORINE	Y			3	3	3		2	NA Uses older FF bags. R4 not used (69.7) PM outlier	
14	201C2	1/30/1991	DRE TEST, also PM, metals, HCl; pre BIF rule	U							3	NA Not evaluated: pre-BIF Rule Data	
15	203C10	5/1/2000	CoC: Max comb temp, max metal and chlorine feed rate, max prod rate, min ESP power	Y			3	3	3		1	CT Run 3 (46) not used in cond avg since ESP went off	
16	203C5	8/16/1996	CoC, MAX COMB ZONE TEMP, MAX METALS/CHLORINE FEED RATES	Y			3	3	3		2	CT	
17	203C2	5/24/1994	State of MS testing, ANNUAL STACK SAMPLING WITH SF6 SPIKE	U							3	N Were LVMs spiked?	
18	203C4	12/1/1993	State of Mississippi required annual testing, DRE TEST USING SF6	U							4	NA Not evaluated: No arsenic emissions data	
19	203C1	7/19/1993	CoC, MAX HW FEED	Y			3	3	3		5	CT	
20	204B2	5/1/1996	NORMAL KILN OPERATING CONDITIONS	N							1	N	
21	204B3	5/1/1996	CoC, MAX COMB ZONE TEMP, MAX SLURRY/METALS FEED, MIN ESP POWER	Y			3	3	3		1	CT	
22	204C1	4/1/1992	CoC, MAX COMB TEMP	Y			3	3	3		2	CT	
23	207C11	12/1/1999	Trial burn; Low temp POHC DRE, PCDD/PCDF	N	N	N					1	N	
24	207C12	8/1/2000	CoC, max metals, waste, slurry	Y			3	3	3		1	IB	
25	207C10	9/1/1998	CoC; max metals, chlorine, waste, slurry, min ESP power	Y			3	3	3		2	CT	
26	207C3	1/1/1997	purpose of testing not clear	U							3	NA Not evaluated: Cr (total) not measured	
27	207C1	1/1/1993	CoC, MAX PROD, MAX TIER III SPIKE, MAX SLURRY FEED	Y			3	3	3		4	CT	
28	207C2	1/1/1993	CoC, MAX PROD, >25% TIER III SPIKE, MAX SLURRY FEED	Y			3	3	3		4	IB	
29	208C10	9/1/1998	CoC; max metals, chlorine, waste, slurry, min ESP power	Y			3	3	3		1	CT	
30	208C11	12/1/1999	TB, low temp, POHC DRE								1	N	
31	208C3	10/1/1996	purpose of test not clear	U							2	NA Not evaluated: Cr (total) not measured	
32	208C1	7/1/1992	CoC, MAX PROD, MAX TIER III SPIKE, MAX SLURRY FEED	Y			3	3	3		3	IB	
33	208C2	7/1/1992	CoC, MAX PROD, >25% TIER III SPIKE, MAX SLURRY FEED	Y			3	3	3		3	CT	
34	228C12	12/1/1997	Metals data from 403C10								0	NA 403C10 sister data	
35	228C2	12/1/1991	CoC, MAX HW FEED	Y			3	3	3		1	CT Data from source 403 currently represents this kilns	
36	228C6	10/1/1988	FIRING HW SOLID WASTE AND COAL	N							2	NA pre BIF data	
37	228C7	10/1/1988	FIRING HW SOLID, LIQUID WASTE AND COAL	N							2	NA pre BIF data	
38	300C11	10/1/1998	CoC; Max operating temp, max temp, feedrates	Y			3	3	3		1	CT	
39	300C13	10/1/1998	Risk burn, normal operations	N							1	N	
40	300C2	5/20/1992	CoC, HIGH COMB TEMP	Y			3	3	3		2	CT	
41	300C6	5/1/1987	BASELINE	N							3	NA Not evaluated: pre-BIF Rule data; no Be emissions	
42	300C7	5/1/1987	Haz waste firing	U							3	NA Not evaluated: pre-BIF Rule data; no Be emissions	
43	302C10	5/1/1998	CoC; high temperature, max metals, prod rate, waste feed	Y			3	3	3		1	CT	
44	302C12	5/1/1998	Risk burn, normal operations	N							1	N	
45	302C3	7/1/1995	CoC, MAX OPERATING CONDITIONS	Y			3	3	3		2	NA Not evaluated: APCS since modified	
46	302C1	6/1/1992	CoC, MAX COMB TEMP, MIN ESP POWER, MAX PROD	Y			3	3	3		3	NA Not evaluated: APCS since modified	
47	303C7	10/1/1995	Trial burn, HIGH COMB TEMP, IN-LINE RAW MILL OFF	Y			3	3	3		1	CT ILRM off	
48	303C9	10/1/1995	NORMAL OPERATING CONDITIONS	N							1	N ILRM on	
49	303C1	4/1/1992	BASELINE, no haz waste	N							2	NA Not evaluated: not burning hazardous waste	
50	303C3	6/1/1992	CoC, HIGH COMB TEMP, IN-LINE RAW MILL OFF	Y			3	3	3		2	CT ILRM off	
51	303C6	4/1/1992	FUEL: COAL/TIRE COMBINATION	N							3	NA Not evaluated: not burning hazardous waste	
52	318C2	6/1/1992	CoC, Metal mode	U			3	3	3		1	NA No Cr emissions. Also data from source 473 curren	
53	473C1	6/8/1995	CoC, METALS MODE, HIGH COMB TEMP	Y			3	3	3		1	NA Data from sister kiln 473	
54	319D6	2/1/1996	TB, MAXIMUM TEMPERATURE CONDITIONS, metals testing	Y			3	3	3		1	CT	
55	319D9	9/1/1996	TB, NORMAL OPERATING CONDITIONS	N							1	N	
56	319D1	12/1/1994	BASELINE	N							2	N	
57	319D2	12/1/1994	CARBON INJECTION	U							2	NA Not evaluated: research testing	
58	319C1	5/5/1992	CoC, HIGH COMB TEMP	Y			3	3	3		3	CT	
59	322C8	9/1/1995	CoC, MAXIMUM OPERATING CONDITIONS FOR PRODUCTION OF CLINKER	Y			3	3	3		1	CT	
60	322C1	5/1/1992	CoC, MAX PROD,MAX HW FEED,MAX COMB TEMP,MAX ESP TEMP	Y			3	3	3		2	CT	
61	323B1	2/1/1995	LOW CHLORINE, HIGH ESP INLET TEMPERATURE	N							1	NA Not evaluated: not burning hazardous waste	

Data Summary: Cement Kilns, Low Volatile Metals

	2	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	57	58	59	60	61	62	63
2	Cond ID	LVM Stack Emissions (ug/dscm), (ND in % of Total)																				LVM SRE		
3	Number	R1		R2		R3		R4		R5		R6		R7		R8		Cond Avg		No SB	Campaign	Rating	Comment	
4		ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	Cond Avg	Cond Avg	Number		
5																								
6	200C10		11.0	2	5.2	1	8.6											1	8.3				1 CT	
7	200C11	1	5.4	1	6.6	1	5.0											1	5.7				1 IB	
8	200C4	3	3.6		9.4													1	6.5				2 NA	
9	200C5	4	1.5	1	16.5													1	9.0				2 NA	
10	200C1		58.8		95.4		101.5		98.9										88.7				3 NA	
11	201C10		6.0		5.8		9.2												7.0				1 CT	
12	201C11	1	5.7	1	6.1	1	4.3											1	5.4				1 IB	
13	201C1		177.3		69.7		70.5												96.8				2 NA	R4 not used (99.98%) PM outlier
14	201C2	0	32.1	0	34.8	0	36.0											0	34.3					
15	203C10	-line	19.6		14.5														17.1				1 CT	R3 not used (99.96%) ESP offline
16	203C5	100	3.1	100	3.3	100	3.3											100	3.2				2 CT	
17	203C2	7	35.3	34	7.8	32	8.3											15	17.1					
18	203C4	4	2.1	4	2.1	3	2.6											3	2.2					
19	203C1	1	14.3	0	30.9	1	15.8											1	20.3				5 CT	
20	204B2	1	5.5	1	5.2	1	4.9											1	5.2					
21	204B3		7.0		8.3		9.8												8.4				1 CT	
22	204C1		5.6	82	4.0	82	2.9											45	4.2				2 CT	
23	207C11	5	71.3		43.5		249.1											1	121.3					
24	207C12	6	6.4	4	10.0	7	4.7											5	7.0				1 CT	
25	207C10		17.1		17.5		25.8												20.1				2 CT	
26	207C3	100	0.7	100	0.8	100	0.7											100	0.8					
27	207C1	1	159.6	10	8.3	7	11.9		47.0									1	56.7				4 IB	
28	207C2	10	8.1	10	7.6	9	7.9	15	5.6	0	293.7	13	5.3					1	54.7				4 CT	
29	208C10		34.9		29.5		21.6												28.7				1 CT	
30	208C11	0	25.6	8	46.7	12	37.7											8	36.7					
31	208C3	80	0.7	81	0.7	79	0.8											80	0.7					
32	208C1	7	9.8	8	9.5	9	7.5	7	10.3									8	9.3				3 IB	
33	208C2	3	25.7	12	5.6	5	14.3	9	7.6	5	13.3	6	13.3					5	13.3				3 CT	
34	228C12		36.5		27.2		27.4												39.4	32.62391			1 NA	Data in lieu
35	228C2	14	16.2			1	27.6		0.0	35	8.1			30	14.4			14	16.7				2 CT	Data from source 403 currently repr
36	228C6	1	414.6	1	481.7	1	592.4	2	176.3									1	416.8					
37	228C7	2	234.5	2	200.9	1	272.1	1	234.7									2	235.1					
38	300C11		16.4		14.2		22.8												17.8				1 CT	
39	300C13	1	10.3	1	12.5	1	14.2												12.4					
40	300C2		105.8		65.0		27.9		54.6										63.3				2 CT	
41	300C6	5	63.4	27	9.7	10	48.5											9	40.5					
42	300C7	24	24.3	14	35.1	16	17.8											18	25.7				3 NA	Not evaluated: pre-BIF Rule data; S
43	302C10		1.1		0.8		1.0												1.0				1 CT	
44	302C12		1.1		1.0		0.6												0.9					
45	302C3		26.6		18.3		16.1												20.3				2 NA	Not evaluated: APCS since modified
46	302C1								15.5		33.3		16.7						21.8				3 NA	Not evaluated: APCS since modified
47	303C7	3	2.9	5	1.7	4	2.2											4	2.3				1 CT	
48	303C9	8	1.2	8	1.2	7	1.2											8	1.2				1 NA	Normal
49	303C1								23.5		24.5		52.2						33.4				2 NA	Not evaluated: not burning hazardous
50	303C3		18.7		3.1		3.1												8.3				2 CT	
51	303C6										5.4		23.6		7.0				12.0					
52	318C2	100	4.7	100	4.3	100	4.4											100	4.5				2 CT	Data from source 473 currently repr
53	473C1		9.9		10.1		10.2												10.1				1 NA	Data in lieu
54	319D6	61	7.9	55	9.0	53	9.4											56	8.8				1 CT	
55	319D9	13	1.9	21	1.2	52	0.5											21	1.2				1 NA	Normal
56	319D1		0.8		3.2		1.2												1.7					
57	319D2		1.7		0.6		0.9												1.1					
58	319C1		63.4		72.5		44.0												59.9				3 CT	
59	322C8		12.9		11.1		16.6												13.5				1 CT	
60	322C1								11.3		19.7		22.0						17.6				2 CT	
61	323B1		2.7				8.8												5.8				1 NA	Not evaluated: not burning hazardous



Data Summary: Cement Kilns, Low Volatile Metals

	2	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	136	137	138	139	140	141
2	Cond ID	LVM Feedrate (ug/dscm)						LVM Feedrate Total (ug/dscm)																	
3	Number	HW	Spike	RM	Coal	MF	Total	ND	R1	ND	R2	ND	R3	ND	R4	R5	ND	R6	R SB	ND	Cond Avg		R1		
4																									
5																									
6	200C10	2,083	353,383	8,343	178		363,987		375,950		345,228		372,650										363,987		367,504
7	200C11	996	580,365	6,374	264		587,999		604,075		588,351		572,235										587,999		597,276
8	200C4	4,816	319,576	19,878			345,818		328,970		362,665		345,818		345,818								345,818		308,576
9	200C5	4,649	507,510	15,744			527,903		478,656		577,149		527,903		527,903								527,903		463,523
10	200C1	5,320	386,737	15,633	169		407,859	5	383,451	6	465,204	6	320,821	4	461,960						8		407,859	0	370,110
11	201C10	8,097	300,917	11,030	292		320,337		296,428		308,742		363,388										320,337		292,812
12	201C11	15,393	492,652	15,195	424		523,664		518,168		556,615		499,405										523,664		503,264
13	201C1	6,255	296,611	16,422	372		319,661		314,419		309,075		278,396		376,755								319,661	1	296,559
14	201C2																								
15	203C10	5,979	97,513	12,108	1,284		116,893	1	113,789	1	110,270	1	127,678								1		116,893		101,831
16	203C5		63,053	11,401	1,178		75,632		70,981		77,470		78,445										75,632		59,989
17	203C2																								
18	203C4																								
19	203C1		12,004	4,000	439		51,993		56,122		49,570		50,286										51,993		12,702
20	204B2																								
21	204B3	2,560	93,494	2,229	155		98,464	1	96,457	0	108,437	1	90,497									0	98,464		95,183
22	204C1	7,371	123,146	10,813	579		141,908	0	158,909	1	121,484	1	145,332								1		141,908		149,255
23	207C11																								
24	207C12	1,105	51,305	3,297	158		55,865		53,310		59,484		54,994										55,865		51,112
25	207C10	529	63,292	6,396	343		70,560		69,301		72,725		69,695										70,560		64,747
26	207C3																								
27	207C1	664	15,215	3,535	1,553		20,968		15,467		21,767		24,923		21,714								20,968		10,927
28	207C2	1,167	13,441	3,724	2,177		19,720		26,083		16,035		16,970		24,376		17,461		17,394				19,720		21,313
29	208C10	357	52,276	6,433	643		59,708		60,134		56,456		62,789										59,708		53,027
30	208C11																								
31	208C3																								
32	208C1	144	15,589	3,953	1,069		20,704		14,854		23,143		24,014		20,805								20,704		10,875
33	208C2	16	7,386	5,970	3,014		16,219		16,838		12,558		15,012		13,221		13,572		26,115				16,219		9,095
34	228C12	6,314	239,319	4,421	280	46	250,379		269,977		251,144		234,189		246,397								250,379		263,919
35	228C2		215,702	4,133	525		220,359				229,689				215,015								220,359		
36	228C6																								
37	228C7																								
38	300C11	15,730	64,203	15,507		106	95,546		93,872		98,190		94,763										95,546		78,297
39	300C13																								
40	300C2		416,774	2,767	13		419,554		413,315		471,544		382,290		411,066								419,554		409,392
41	300C6																								
42	300C7	3,479					3,479		156		7,805	1	2,475										3,479		156
43	302C10	4,365	163,706	29,799			197,870		197,026		187,529		209,701										197,870		167,643
44	302C12																								
45	302C3	6,556	144,611	41,916			193,082		217,863		175,604		185,780										193,082		164,520
46	302C1		206,469	41,121			247,591								275,395		222,391		244,986				247,591		
47	303C7	11,558	17,680	19,818	1,712		50,768																50,768		
48	303C9	5,544	0	19,373			26,645																26,645		
49	303C1			4,956	5,629		5,629								5,395		5,784		5,708				5,629		
50	303C3	22,331		13,715			39,234		40,406		40,126		37,170										39,234		23,195
51	303C6																								
52	318C2		51,498	250			51,748		50,954		54,312		49,978										51,748		50,717
53	473C1	57,666					57,666		55,352		56,448		61,197										57,666		
54	319D6	5,106	139,231	588	518		144,819		148,227		134,107		152,121										144,819		147,076
55	319D9	3,562		9,242	566		13,370		13,140		13,066		13,904										13,370		2,960
56	319D1																								
57	319D2																								
58	319C1	9,257	184,875	6,106	379		200,618																200,618		
59	322C8	22,342	111,007	16,211			149,560		163,769		142,690		142,219										149,560		144,493
60	322C1	16,530	153,513	9,674			179,717							1	171,890	1	168,922	1	198,339			1	179,717		
61	323B1			36,311	1,486		37,797		35,000		35,052		43,339										37,797		

Data Summary: Cement Kilns, Low Volatile Metals

	2	142	143	144	145	146	147	148	149	150	151	164	165	166	167	168	169	170
2	Cond ID	LVM HW + Spike MTEC (ug/dscm)											Thermal Feed Cond Avg (MMBtu/hr)					
3	Number	R2	R3	R4	R5	R6	Cond Avg						HW	Coal	MF	Total	Est Tot	
4																		
5																		
6	200C10		337,157		363,559								355,466	168.33	15.22		185.84	211.24
7	200C11		581,386		566,071								581,361	52.90	15.24		68.14	126.90
8	200C4		340,784		4,240								324,392	134.00	43.77		177.88	232.09
9	200C5		560,794										512,159	85.60	13.40		99.00	144.47
10	200C1		447,352		305,589		445,177						392,057	104.30	14.90		119.20	175.24
11	201C10		294,896		346,789								309,014	149.33	27.60		176.93	274.67
12	201C11		538,415		485,417								508,045	121.00	21.47		142.47	170.50
13	201C1		292,090		262,045		360,773						302,867	119.78	30.16		149.94	197.38
14	201C2													0.00	0.00			
15	203C10		97,932										103,492	274.67	120.53		405.54	363.94
16	203C5		63,784		65,386								63,053	162.00	187.89		349.89	483.01
17	203C2																	
18	203C4																	
19	203C1		11,326		11,985								12,004	166.67	118.00		284.67	425.98
20	204B2													0.00				
21	204B3		105,766		87,215								96,055	377.67	649.33		1,063.00	1,677.45
22	204C1		111,065		131,230								130,517	666.25	493.33		1,159.59	1,042.63
23	207C11													0.00				186.02
24	207C12		53,108		53,071								52,410	78.33	14.00		92.33	147.82
25	207C10		64,479		62,288								63,821	66.00	15.00		81.00	138.45
26	207C3													0.00				
27	207C1		17,208		19,748		15,634						15,879	49.75	59.40		109.15	123.90
28	207C2		9,252		11,693		17,611		504		390		14,607	38.60	104.40		143.00	134.46
29	208C10		49,934		55,146								52,633	266.67	143.73		410.40	535.61
30	208C11													0.00				464.99
31	208C3													0.00				
32	208C1		19,188		17,350		15,805						15,733	161.50	127.83		289.33	250.57
33	208C2		6,157		7,841		6,512						7,401	91.97	194.65		286.62	436.82
34	228C12		246,932		229,879		241,973						245,633	233.75	55.90	26.23	317.75	315.21
35	228C2		224,767				210,580				211,758		215,702	237.31	60.31		297.62	283.00
36	228C6																	
37	228C7																	
38	300C11		82,081		79,587								79,934	218.63		1.90	220.53	298.92
39	300C13													194.63		19.04	213.67	294.24
40	300C2		469,256		380,031		408,418						416,774	160.18	11.25		171.43	246.80
41	300C6																	
42	300C7		7,805	1	2,475								3,479					
43	302C10		161,500		175,455								168,071	190.67			190.67	262.71
44	302C12													184.33			184.33	257.77
45	302C3		142,058		146,922								151,167	165.29			165.29	141.14
46	302C1						221,020		190,279		208,109		206,469	179.51			179.51	195.60
47	303C7												29,238	211.48	408.16		619.64	823.22
48	303C9												5,544	192.10	369.60		561.70	817.47
49	303C1													0.00	440.00		440.00	879.69
50	303C3		22,098		21,700								22,331	277.37	272.67		550.04	880.42
51	303C6													0.00				
52	318C2		54,044		49,734								51,498	200.75			200.75	265.07
53	473C1													207.49			207.49	265.14
54	319D6		132,727		151,335								144,337	322.18	144.48		466.66	673.78
55	319D9		2,981		4,746								3,562	216.38	243.81		460.19	629.10
56	319D1													0.00				
57	319D2													0.00				
58	319C1												194,133	331.99	88.00		419.99	704.58
59	322C8		128,287		127,267								133,349	130.33			130.33	161.40
60	322C1						160,583		160,712		188,834		170,043	141.81			141.81	210.58
61	323B1													0.00	110.40		110.40	232.95

Data Summary: Cement Kilns, Low Volatile Metals

	2	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	188	189	190
2	Cond ID	Thermal Emission Rating			LVM HW Thermal Emiss (lb/10 <sup>12</sup> Btu)														
3	Number	Camp No	Rating	Rating	R1			R2		R3		R4		R5		R6		Cond Avg	
4		No		Comments															
5																			
6	200C10		1 CT																8.68
7	200C11		1 IB		1.47	6.92	1.06	14.37	1.39	20.18									13.82
8	200C4		2 NA		2.50	4.96		11.23											8.09
9	200C5		2 NA		3.80	2.00	0.60	24.10											13.05
10	200C1		3 NA			83.95		136.79		150.59		133.24							126.14
11	201C10		1 CT			8.58		8.95		13.47									10.34
12	201C11		1 IB		0.71	7.62	0.82	6.06	0.93	4.74									6.14
13	201C1		2 NA	R4 (106.2) not used PM outlier		141.19		145.81		90.38									125.79
14	201C2																		
15	203C10		1 CT	R3 (42.9) ESP offline		18.49		14.00											16.24
16	203C5		2 CT			6.88		6.51		6.57									6.65
17	203C2																		
18	203C4																		
19	203C1		3 CT		0.89	26.58	0.37	66.34	0.77	28.75									40.56
20	204B2																		
21	204B3		1 CT			25.50		27.22		38.50									30.41
22	204C1		2 CT			8.42	82.2	5.57	82.2	3.90									5.96
23	207C11																		
24	207C12		1 IB		5.65	8.62	3.50	13.46	7.08	7.87									9.98
25	207C10		2 CT			26.33		27.80		42.74									32.29
26	207C3																		
27	207C1		4 CT		0.54	227.01	####	13.59	6.51	19.48		85.50							86.40
28	207C2		4 IB		10.0	12.06	9.8	12.86	9.1	19.80	15.1	10.45		38.04		0.46			15.61
29	208C10		1 CT			47.76		43.24		38.04									43.02
30	208C11																		
31	208C3																		
32	208C1		3 IB		7.16	16.11	7.50	17.51	9.34	12.28	6.62	19.15							16.26
33	208C2		3 CT		2.95	74.85	####	10.81	5.19	26.90	8.55	13.46							31.51
34	228C12																		
35	228C2		2 CT	Data from source 403 currently represents this kilns emiss				27.07		6.92						13.82			15.94
36	228C6																		
37	228C7																		
38	300C11		1 CT			16.85		13.46		22.45									17.59
39	300C13																		
40	300C2		2 CT			135.31		76.02		40.97		70.08							80.60
41	300C6																		
42	300C7																		
43	302C10		1 CT			1.09		0.77		0.91									0.92
44	302C12																		
45	302C3		2 NA	Not evaluated: APCS since modified		15.43		11.89		8.26									11.86
46	302C1		3 CT							11.34		26.20		12.60					16.71
47	303C7		1 N																4.21
48	303C9		1 NA																0.92
49	303C1		2 CT																
50	303C3		2 NA			28.02		4.74		4.85									12.53
51	303C6																		
52	318C2		2 NA	Data from source 473 currently represents this kiln	100	562.75	100	501.10	100	522.65									528.84
53	473C1		1 NA	Data in lieu		11.21		11.18		10.24									10.88
54	319D6		1 CT		61.0	14.64	54.9	15.76	52.7	15.68									15.36
55	319D9		1 N	Normal	12.9	1.10	20.9	0.59	52.5	0.26									0.65
56	319D1																		
57	319D2																		
58	319C1		3 CT																104.78
59	322C8		1 CT			11.43		10.71		15.27									12.47
60	322C1		2 CT									14.78		26.05		28.01			22.95
61	323B1																		



Data Summary: Cement Kilns, Low Volatile Metals

	2	191	192	193	194	195	196	197	198	199	200	201	204	205
2	Cond ID	LVM in HW (lb/10 <sup>9</sup> Btu) Cond Avg												
3	Number	R1	R2	R3	R4	R5	R6	Cond Avg						
4														
5														
6	200C10	353.82		335.89		463.02								384.24
7	200C11	768.35		1,282.82		2,295.30								1448.83
8	200C4	449.73		435.21		0.00								294.98
9	200C5	625.26		843.52										734.39
10	200C1	517.79		630.22		446.81		597.69						548.13
11	201C10	422.65		478.25		529.91								476.94
12	201C11	698.71		550.55		550.65								599.97
13	201C1	250.34		647.01		356.87		574.13						457.09
14	201C2													
15	203C10	106.73		106.01										106.37
16	203C5	156.05		150.97		157.96								154.99
17	203C2													
18	203C4													
19	203C1	104.57		106.46		91.68								100.90
20	204B2													
21	204B3	350.23		355.22		352.61								352.69
22	204C1	236.89		167.71		193.17								199.25
23	207C11													
24	207C12	72.15		80.05		92.85								81.68
25	207C10	106.70		115.47		115.40								112.52
26	207C3													
27	207C1	22.00		35.56		40.95		39.47						34.50
28	207C2	38.86		27.03		42.62		45.58						38.52
29	208C10	82.37		82.65		110.59								91.87
30	208C11													
31	208C3													
32	208C1	24.41		42.55		39.45		38.60						36.26
33	208C2	49.00		24.28		28.33		23.29						31.23
34	228C12													
35	228C2			225.99				215.38			209.17			216.85
36	228C6													
37	228C7													
38	300C11	96.56		93.12		93.24								94.31
39	300C13													
40	300C2	528.72		551.48	1	561.31		527.55						542.27
41	300C6													
42	300C7													
43	302C10	193.59		188.51		194.84								192.31
44	302C12													
45	302C3	126.53		114.32		95.36								112.07
46	302C1							201.80		174.77		184.63		187.07
47	303C7													94.83
48	303C9													20.48
49	303C1													
50	303C3	60.54		60.94		57.44								59.64
51	303C6													
52	318C2	56.31		59.42		55.82								57.19
53	473C1	62.59		62.47		61.24								62.10
54	319D6	273.96		235.20		253.16								254.11
55	319D9	8.28		7.38		10.17								8.61
56	319D1													
57	319D2													
58	319C1													350.78
59	322C8	145.44		137.33		130.78								137.85
60	322C1							222.77		221.06		249.95		231.26
61	323B1													

Data Summary: Cement Kilns, Low Volatile Metals

	1	2	3	4	5	6	7	8	11	12	13	15	16	17	18	19
2	Source ID	Cond ID	Facility Information		Combustor Information			APCS Detailed Acronym	Short Kiln	ILRM Status	Hazardous Wastes	Munitions Popping Furnace	Chemical Weapons Demil	Mixed Radioactive Waste	Comm vs On-site	Gov't
3	Number	Number	Facility Name	City	Combustor Category	Combustor Class	Combustor Type									
4																
5																
62	323	323B2	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
63	323	323C9	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
64	323	323B3	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
65	323	323C1	LAFARGE	FREDONIA	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, sludge	No	No	No	Comm	No
66	403	403C10	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq and solid	No	No	No	Comm	No
67	403	403C3	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq and solid	No	No	No	Comm	No
68	403	403C1	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq and solid	No	No	No	Comm	No
69	404	404C10	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
70	404	404C4	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
71	404	404C1	Ash Grove Cement Company	Foreman	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
72	473	473C1	Texas Industries Inc.	Midlothian	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
73	491	300C11	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
74	491	300C13	Essroc	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
75	491	491C1	Essroc Corporation	Logansport	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq, solid	No	No	No	Comm	No
76	680	200C10	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
77	680	200C11	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
78	680	680C1	Giant Cement Company	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
79	681	200C10	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
80	681	200C11	Giant Cement	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
81	681	681C1	Giant Cement Company	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
82	681	681C2	Giant Cement Company	Harleyville	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
83	3029	3029C11	Lone Star	Greencastle	Cement kiln	Cement Kiln	Semi-dry, short	ESP (main), FF (bypass)	Yes	on	Liq	No	No	No	Comm	No
84	3030	3030C1	TXI	Midlothian	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
85	3030	473C1	Texas Industries Inc.	Midlothian	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
86	3031	3031C1	ASH GROVE CEMENT COMPA	CHANUTE	Cement kiln	Cement Kiln	Preheater/prec:	FF (main), FF (bypass)	Yes	on		No	No	No	Comm	No
87	3031	3031C2	ASH GROVE CEMENT COMPA	CHANUTE	Cement kiln	Cement Kiln	Preheater/prec:	FF (main), FF (bypass)	Yes	off		No	No	No	Comm	No
88	302A	302C10	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
89	302A	302C12	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
90	302A	302C3	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
91	302A	302C1	Lafarge	Paulding	Cement kiln	Cement Kiln	Wet, long	FF	No		Liq	No	No	No	Comm	No
92	473A	473C1	Texas Industries Inc.	Midlothian	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
93																
94																
95	Sources Shutdown or No Longer Burning Hazardous Wastes															
96	205	205C10	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
97	205	205C5	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
98	205	205C7	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
99	205	205C1	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
100	206	206C10	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
101	206	206C5	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No
102	206	206C1	Holcim (US) Inc	Holly Hill	Cement kiln	Cement Kiln	Wet, long	ESP	No		Liq	No	No	No	Comm	No

Data Summary: Cement Kilns, Low Volatile Metals

	2	20	21	22	23	24	25	26	27	30	31	32	
2	Cond ID	Condition Information			Spiking			Tier			LVM Emissions		
3	Number	Cond	Cond Description	Cr	As	Be	Cr	As	Be	Campaign	Rating	Rating Comments	
4		Dates								Number			
62	323B2	2/1/1995	HIGH CHLORINE, LOW ESP INLET TEMPERATURE	UL						1	NA	Not evaluated: demonstration testing	
63	323C9	2/1/1995	HIGH CHLORINE, HIGH ESP INLET TEMPERATURE	UL						1	NA	Not evaluated: demonstration testing	
64	323B3	9/1/1995	CoC, MAX OPERATING CONDITIONS	Y			3	3	3	2	CT		
65	323C1	5/1/1992	CoC, MAX PROD,MAX HW FEED,MAX COMB TEMP,MAX ESP TEMP	Y			3	3	3	3	CT		
66	403C10	12/1/1997	Trial burn: Max comb temp, max metals, chlorine, raw material feedrate, 4 runs	Y			3	3	3	1	CT		
67	403C3	11/1/1994	CoC, HIGH COMB TEMP, HIGH CL FEED, HIGH HW FEED	Y			3	3	3	2	CT		
68	403C1	5/1/1992	CoC, HIGH COMB TEMP, MIN ESP POWER	Y			3	3	3	3	CT		
69	404C10	1/1/1998	Trial burn: Max comb temp, max metals, chlorine, raw material feedrate, max APCD temp, mii	Y			3	3	3	1	CT		
70	404C4	1/17/1995	CoC, MAX FEED, PRODUCTION, CHLORINE, & COMB. TEMP. MIN ESP POWER	Y			3	3	3	2	CT		
71	404C1	7/1/1992	CoC, HIGH COMB TEMP, MIN ESP POWER	Y			3	3	3	3	CT		
72	473C1	6/8/1995	CoC, METALS MODE, HIGH COMB TEMP	Y			3	3	3	1	CT		
73	300C11	10/1/1998	CoC; Max operating temp, max temp, feedrates	Y			3	3	3	1	NA	Data in lieu	
74	300C13	10/1/1998	Risk burn, normal operations	N						1	NA	Data in lieu	
75	491C1	5/1/1995	CoC, MAX COMB TEMP, MAX METALS/CL FEED, MAX APCD TEMP	Y			3	3	3	2	CT	Data from source 300 represents this kiln	
76	200C10	9/1/1998	CoC, Max operating mode waste feed, temp, prod rate	Y			3	3	3	1	NA	Data in lieu	
77	200C11	9/1/1998	CoC, Min dp on FF	Y			3	3	3	1	NA	Data in lieu	
78	680C1	11/11/1993	?	U						2	NA	Data from source 200 currently represents this kiln.	
79	200C10	9/1/1998	CoC, Max operating mode waste feed, temp, prod rate	Y			3	3	3	1	NA	Data in lieu	
80	200C11	9/1/1998	CoC, Min dp on FF	Y			3	3	3	1	NA	Data in lieu	
81	681C1	11/10/1993	State of South Carolina emissions testing requirements	U						1	NA	Data from source 200 currently represents this kiln.	
82	681C2	6/5/1991	State of South Carolina emissions testing requirements, pre-BIF	U						2	NA	pre BIF data	
83	3029C11	12/1/2000	CoC	Y			3	3	3	1	CT	ILRM on	
84	3030C1	3/1/2001	Periodic air emissions evaluation	U						1	N	Were LVMs spiked?	
85	473C1	6/8/1995	CoC, METALS MODE, HIGH COMB TEMP	Y			3	3	3	2	NA	Data from sister kiln 473	
86	3031C1	12/1/2001	Comp Perf Test, raw mill on	Y			3	3	3	1	NA	Feedrate extrapolated limits; <a href="#">MACT New Source</a> ; <a href="#">da</a>	
87	3031C2	3/1/2002	Comp Perf Test, raw mill off	Y			3	3	3	1	NA	Feedrate extrapolated limits; <a href="#">MACT New Source</a> ; <a href="#">da</a>	
88	302C10	5/1/1998	CoC; high temperature, max metals, prod rate, waste feed	Y			3	3	3	1	NA	Data in lieu	
89	302C12	5/1/1998	Risk burn, normal operations	N						1	NA	Data in lieu	
90	302C3	7/1/1995	CoC, MAX OPERATING CONDITIONS	Y			3	3	3	2	NA	Not evaluated: APCS since modified, data in lieu	
91	302C1	6/1/1992	CoC, MAX COMB TEMP, MIN ESP POWER, MAX PROD	Y			3	3	3	3	NA	Not evaluated: APCS since modified, data in lieu	
92	473C1	6/8/1995	CoC, METALS MODE, HIGH COMB TEMP	Y			3	3	3	1	NA	Data from sister kiln 473	
93													
94													
95	Shutdown or N												
96	205C10	1/1/2000	Max comb temp, max metals, max chlorine, max prod rate	Y			3	3	3	1	NA	Extrapolation for Cr	
97	205C5	6/1/1995	ReCoC, HIGH COMB TEMP, HIGH METALS FEED, HIGH CHLORINE	Y			3	3	3	2	CT		
98	205C7	6/1/1995	NORMAL WASTE FUEL OPERATIONS	N						3	N	Normal LVM emiss > other CT levels	
99	205C1	6/1/1992	CoC, MAX COMB TEMP	Y			3	3	3	4	CT		
100	206C10	11/1/1999	Max comb temp, max metals, max chlorine, max prod rate, max waste	Y			3	3	3	1	NA	Extrapolation for Cr	
101	206C5	5/1/1995	CoC, MAX COMB TEMPS AND MAX METALS/CHLORINE FEED RATES	Y			3	3	3	2	CT		
102	206C1	7/1/1992	CoC, MAX COMB TEMP	Y			3	3	3	3	CT		

Data Summary: Cement Kilns, Low Volatile Metals

	2	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	57	58	59	60	61	62	63	
2	Cond ID	LVM Stack Emissions (ug/dscm), (ND in % of Total)																				LVM SRE			
3	Number	R1		R2		R3		R4		R5		R6		R7		R8		Cond Avg		No SB		Campaign	Rating	Comment	
4		ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	ND	Emiss	Cond Avg	Number		
5																									
62	323B2	0	4.3	1	2.3	0	6.3											0	4.3			1 NA		Not evaluated: demonstration testin	
63	323C9	29	3.9	0	5.4	0	2.4											10	3.9			1 NA		Not evaluated: demonstration testin	
64	323B3		5.5		8.8		4.8												6.4			2 CT			
65	323C1								34.4		43.6		96.0						58.0			3 CT			
66	403C10	2	16.7	2	14.3	3	11.0												32.6			1 CT			
67	403C3	3	13.6	2	16.7	2	14.3	3	11.0									3	13.9			2 CT			
68	403C1	100	26.2	100	27.4	100	27.4	100	32.1									100	28.3			3 CT			
69	404C10		13.0		15.2		11.5		9.1										12.2			1 CT			
70	404C4		5.8		4.3		4.8		6.1										5.2			2 CT			
71	404C1	100	23.5	100	28.7	100	27.3	100	9.1	100	8.5	100	9.4					100	17.7			3 CT			
72	473C1	85	9.9	82	10.1	80	10.2											82	10.1			1 CT			
73	300C11		16.4		14.2		22.8												17.8			1 NA		Data in lieu	
74	300C13		10.3		12.5		14.2												12.4					Data in lieu	
75	491C1		68.7		55.1		101.7												75.2			2 CT		Data from source 300 represents th	
76	200C10		11.0	2	5.2	1	8.6											1	8.3			1 NA		Data in lieu	
77	200C11	1	5.4	1	6.6	1	5.0											1	5.7			1 NA		Data in lieu	
78	680C1	1	52.2	7	40.1	7	40.9											5	44.4						
79	200C10		11.0	2	5.2	1	8.6											1	8.3			1 NA		Data in lieu	
80	200C11	1	5.4	1	6.6	1	5.0											1	5.7			1 NA		Data in lieu	
81	681C1	Jses o	119.1		128.0		1,177.7												475.0						
82	681C2		21.7		15.5	93	15.9											28	17.7						
83	3029C11		14.2		13.6		13.4												13.7			1 CT			
84	3030C1	20	2.5	24	1.9	3	22.5											6	9.0						
85	473C1		9.9		10.1		10.2												10.1			1 NA		Data in lieu	
86	3031C1	ta not	1.3		0.5		0.5		0.2										0.6			1 CT			
87	3031C2	ta not	0.2		0.7		0.2												0.4			1 IB			
88	302C10		1.1		0.8		1.0												1.0			1 NA		Data in lieu	
89	302C12		1.1		1.0		0.6												0.9					Data in lieu	
90	302C3		26.6		18.3		16.1												20.3			2 NA		Not evaluated: APCS since modified	
91	302C1								15.5		33.3		16.7						21.8			3 NA		Not evaluated: APCS since modified	
92	473C1		9.9		10.1		10.2												10.1			1 NA		Data in lieu	
93																									
94																									
95	Shutdown or N																								
96	205C10		7.4		6.3		2.7												5.5			1 CT			
97	205C5	1	10.2	1	17.1	3	3.5											1	10.3			2 CT			
98	205C7	0	53.6	0	40.0	1	30.0											0	41.2						
99	205C1	14	7.9		17.1		15.4											3	13.5			4 CT			
100	206C10		3.4		4.1		11.6												6.4			1 CT			
101	206C5		31.2		12.9		16.4												20.2			2 CT			
102	206C1	14	6.9	13	7.4	14	6.8											14	7.0			3 CT			

Data Summary: Cement Kilns, Low Volatile Metals

2	64	65	66	67	68	69	70	71	72	73	74	75	82	83	86	87	88	89	90	91	92	93	94	95	96	97	104	105	
2	Cond ID	LVM SRE (%)													LVM SRE Used for Ranking Purposes(%)														
3	Number	R1	R2	R3	R4	R5	R6	Cond Avg	R1	R2	R3	R4	R5	R6	Cond Avg	R1	R2	R3	R4	R5	R6	Cond Avg							
4																													
5																													
62	323B2	99.9936	99.9956	99.9884				99.9925	99.9936	99.9956	99.9884				99.9925	99.9936	99.9956	99.9884									99.9925		
63	323C9	99.9922 >	99.9901 >	99.9958				>	99.9926	99.9922 >	99.9901 >	99.9958				99.9926	99.9922 >	99.9901 >	99.9958							>	99.9926		
64	323B3	99.9958	99.9931	99.9962					99.9950	99.9958	99.9931	99.9962				99.9950	99.9958	99.9931	99.9962									99.9950	
65	323C1				>	99.9831 >	99.9704 >	99.9613 >	99.9710				>	99.9831 >	99.9704 >	99.9613 >												99.9710	
66	403C10	99.9854	99.9855	99.9884	99.9889				99.9870	99.9854	99.9855	99.9884	99.9889			99.9870	99.9854	99.9855	99.9884	99.9889								99.9870	
67	403C3 >	99.9943	99.9938 >	99.9945	99.9941				99.9942 >	99.9943	99.9938 >	99.9945	99.9941			99.9942 >	99.9943	99.9938 >	99.9945	99.9941								99.9942	
68	403C1 >	99.9807 >	99.9822 >	99.9831 >	99.9815				99.9819 >	99.9807 >	99.9822 >	99.9831 >	99.9815			99.9819 >	99.9807 >	99.9822 >	99.9831 >	99.9815						>	99.9819		
69	404C10	99.9925	99.9914	99.9937	99.9954				99.9933	99.9925	99.9914	99.9937	99.9954			99.9933	99.9925	99.9914	99.9937	99.9954								99.9933	
70	404C4 >	99.9966 >	99.9974 >	99.9972	99.9974				>	99.9972 >	99.9966 >	99.9974 >	99.9972			>	99.9972 >	99.9966 >	99.9974 >	99.9972	99.9974					>	99.9972		
71	404C1 >	99.9835 >	99.9831 >	99.9828 >	99.9957 >	99.9939 >	99.9955 >		99.9897 >	99.9835 >	99.9831 >	99.9828 >	99.9957 >	99.9939 >	99.9955 >	99.9897 >	99.9835 >	99.9831 >	99.9828 >	99.9957 >	99.9939 >	99.9955 >				>	99.9897		
72	473C1	99.9821	99.9821	99.9833					99.9825	99.9821	99.9821	99.9833				99.9825	99.9821	99.9821	99.9833									99.9825	
73	300C11	99.9826	99.9855	99.9759					99.9814	99.9826	99.9855	99.9759				99.9814	99.9826	99.9855	99.9759									99.9814	
74	300C13																												
75	491C1	99.9676	99.9806	99.9589					99.9697	99.9676	99.9806	99.9589				99.9697	99.9676	99.9806	99.9589									99.9697	
76	200C10	99.9971 >	99.9985 >	99.9977					>	99.9977	99.9971 >	99.9985 >	99.9977			>	99.9977	99.9971 >	99.9985 >	99.9977						>	99.9977		
77	200C11 >	99.9991 >	99.9989 >	99.9991					>	99.9990 >	99.9991 >	99.9989 >	99.9991			>	99.9990 >	99.9991 >	99.9989 >	99.9991						>	99.9990		
78	680C1																												
79	200C10	99.9971 >	99.9985 >	99.9977					>	99.9977	99.9971 >	99.9985 >	99.9977			>	99.9977	99.9971 >	99.9985 >	99.9977						>	99.9977		
80	200C11 >	99.9991 >	99.9989 >	99.9991					>	99.9990 >	99.9991 >	99.9989 >	99.9991			>	99.9990 >	99.9991 >	99.9989 >	99.9991						>	99.9990		
81	681C1																												
82	681C2																												
83	3029C11	99.9863	99.9859	99.9871					99.9864	99.9863	99.9859	99.9871				99.9864	99.9863	99.9859	99.9871									99.9864	
84	3030C1																												
85	473C1	99.9821	99.9821	99.9833					99.9825	99.9821	99.9821	99.9833				99.9825	99.9821	99.9821	99.9833									99.9825	
86	3031C1	99.9986	99.9991	99.9989	99.9996				99.9990	99.9986	99.9991	99.9989	99.9996			99.9990	99.9986	99.9991	99.9989	99.9996								99.9990	
87	3031C2	99.9998	99.9985		99.9996				99.9994	99.9998	99.9985		99.9996			99.9994	99.9998	99.9985		99.9996								99.9994	
88	302C10	99.9994	99.9996	99.9995					99.9995	99.9994	99.9996	99.9995				99.9995	99.9994	99.9996	99.9995									99.9995	
89	302C12																												
90	302C3	99.9878	99.9896	99.9913					99.9895	99.9878	99.9896	99.9913				99.9895	99.9878	99.9896	99.9913									99.9895	
91	302C1								99.9912							99.9912													99.9912
92	473C1	99.9821	99.9821	99.9833					99.9825	99.9821	99.9821	99.9833				99.9825	99.9821	99.9821	99.9833			99.9944	99.9850	99.9932				99.9825	
93																													
94																													
95	Outdown or N																												
96	205C10	99.9652	99.9668	99.9863					99.9727	99.9652	99.9668	99.9863				99.9727	99.9652	99.9668	99.9863									99.9727	
97	205C5 >	99.9932 >	99.9889 >	99.9977					>	99.9933 >	99.9932 >	99.9889 >	99.9977			>	99.9933 >	99.9932 >	99.9889 >	99.9977						>	99.9933		
98	205C7																												
99	205C1 >	99.9946	99.9881	99.9904					>	99.9910 >	99.9946	99.9881	99.9904			>	99.9910 >	99.9946	99.9881	99.9904						>	99.9910		
100	206C10	99.9887	99.9856	99.9560					99.9776	99.9887	99.9856	99.9560				99.9776	99.9887	99.9856	99.9560									99.9776	
101	206C5	99.9808	99.9921	99.9906					99.9879	99.9808	99.9921	99.9906				99.9879	99.9808	99.9921	99.9906									99.9879	
102	206C1 >	99.9964 >	99.9961 >	99.9962					>	99.9962 >	99.9964 >	99.9961 >	99.9962			>	99.9962 >	99.9964 >	99.9961 >	99.9962						>	99.9962		

Data Summary: Cement Kilns, Low Volatile Metals

	2	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	136	137	138	139	140	141	
2	Cond ID	LVM Feedrate (ug/dscm)						LVM Feedrate Total (ug/dscm)																		
3	Number	HW	Spike	RM	Coal	MF	Total	ND	R1	ND	R2	ND	R3	ND	R4	ND	R5	ND	R6	R SB	ND	Cond Avg		R1		
4																										
5																										
62	323B2	16,552		41,482			58,034		67,259		52,524		54,319										58,034		19,722	
63	323C9	11,832		36,038			47,869		42,907	0	51,556	0	49,144									0	47,869	1	9,559	
64	323B3	26,422	81,122	42,133			128,610		129,932		128,725		127,172										128,610		106,996	
65	323C1	21,417	168,733	12,643			202,793							1	206,396	3	151,551	1	250,432			2	202,793			
66	403C10	6,314	239,319	4,421	280	46	250,379		269,977		251,144		234,189		246,397								250,379		263,919	
67	403C3	24,203	235,162	3,294	908		239,364	0	240,964		269,836	0	258,892		187,764								239,364		253,062	
68	403C1		152,896	2,930	1,726		157,552	1	136,882	1	154,664	1	163,596	1	175,067							1	157,552		132,213	
69	404C10	242	177,662	3,174	1,132	50	182,261		172,490		176,707		182,392		197,555								182,261		169,691	
70	404C4	34,395	146,560	3,438	1,227		185,620	0	170,231	0	163,509	0	171,398	0	237,341							0	185,620		165,792	
71	404C1	49,519	117,223	2,863	3,324		172,928	1	143,643	1	171,081	1	159,837	1	213,815	1	141,095	1	208,097			1	172,928		138,208	
72	473C1	57,666					57,666		55,352		56,448		61,197										57,666		55,352	
73	300C11	15,730	64,203	15,507		106	95,546		93,872		98,190		94,763										95,546			
74	300C13																									
75	491C1	30,440	157,638	6,686			247,706		212,121		283,643		247,353		36,024								247,706		205,339	
76	200C10	2,083	353,383	8,343	178		363,987		375,950		345,228		372,650										363,987			
77	200C11	996	580,365	6,374	264		587,999		604,075		588,351		572,235										587,999			
78	680C1																									
79	200C10	2,083	353,383	8,343	178		363,987		375,950		345,228		372,650										363,987			
80	200C11	996	580,365	6,374	264		587,999		604,075		588,351		572,235										587,999			
81	681C1																									
82	681C2																									
83	3029C11	2,697	63,859	31,818	2,644		101,018		103,313		96,530		103,352										101,018		68,431	
84	3030C1																									
85	473C1	57,666					57,666		55,352		56,448		61,197										57,666			
86	3031C1								89,702		51,552		43,309		48,682								58,311			
87	3031C2								82,212		46,336				45,818								58,122			
88	302C10	4,365	163,706	29,799			197,870		197,026		187,529		209,701										197,870			
89	302C12																									
90	302C3	6,556	144,611	41,916			193,082		217,863		175,604		185,780										193,082			
91	302C1		206,469	41,121			247,591								275,395		222,391		244,986				247,591			
92	473C1	57,666					57,666		55,352		56,448		61,197										57,666			
93																										
94																										
95	Shutdown or N																									
96	205C10	1,017	5,923	12,749	344		20,033		21,293		18,988		19,855										20,033			
97	205C5		122,512	28,912	1,279		152,703		149,821		154,178		154,110										152,703			
98	205C7																									
99	205C1	4,658	125,466	20,021	341		150,486		146,957		143,265		161,238										150,486			
100	206C10	3,427	3,591	20,967	375		28,361		30,081		28,395		26,382										28,361			
101	206C5		137,287	28,419	786		166,493		162,371		162,520		174,587										166,493			
102	206C1	3,894	156,566	24,144	721		185,325		189,767		188,762		177,447										185,325			

Data Summary: Cement Kilns, Low Volatile Metals

	2	142	143	144	145	146	147	148	149	150	151	164	165	166	167	168	169	170
2	Cond ID	LVM HW + Spike MTEC (ug/dscm)											Thermal Feed Cond Avg (MMBtu/hr)					
3	Number	R2	R3	R4	R5	R6	Cond Avg					HW	Coal	MF	Total	Est Tot		
4																		
5																		
62	323B2		14,404		15,531								16,552	166.67			166.67	211.92
63	323C9	1	13,474	1	12,461								11,832	170.00			170.00	230.64
64	323B3		107,839		107,795								107,543	200.33			200.33	239.56
65	323C1												190,150	204.02			204.02	257.05
66	403C10		246,932		229,879		194,025	138,429		237,996			245,633	233.75	55.90	26.23	317.75	315.21
67	403C3		296,084		284,529		203,787						259,366	406.88	58.17		465.06	323.86
68	403C1		150,181		159,115		170,075						152,896	222.25	106.85		329.10	303.01
69	404C10		170,914		177,992		193,139						177,904	248.25	97.43	41.15	384.39	450.07
70	404C4		158,804		166,652		232,571						180,955	280.00	125.96		401.96	464.23
71	404C1		164,032		153,097		207,816	136,367		200,930			166,742	235.58	181.83		417.42	456.87
72	473C1		56,448		61,197								57,666	207.49			207.49	265.14
73	300C11												218.63		1.90		220.53	298.92
74	300C13												194.63		19.04		213.67	294.24
75	491C1		277,192		241,894		27,886						188,078	228.75		25.65	242.33	343.86
76	200C10												168.33	15.22			185.84	211.24
77	200C11												52.90	15.24			68.14	126.90
78	680C1												168.33	15.22			185.84	211.24
79	200C10												52.90	15.24			68.14	126.90
80	200C11												52.90	15.24			68.14	126.90
81	681C1																	
82	681C2																	
83	3029C11		63,167		68,158								66,556	273.22	496.60		772.17	1,177.91
84	3030C1												0.00					
85	473C1												207.49				207.49	265.14
86	3031C1												0.00	343.22			326.88	1,037.49
87	3031C2												0.00				479.42	960.80
88	302C10												190.67				190.67	262.71
89	302C12												184.33				184.33	257.77
90	302C3												165.29				165.29	141.14
91	302C1												179.51				179.51	195.60
92	473C1												207.49				207.49	265.14
93																		
94																		
95	Shutdown or N																	
96	205C10													208.88	100.51		309.00	437.70
97	205C5													163.00	146.33		309.33	390.60
98	205C7																	
99	205C1													172.99	74.20		247.19	407.72
100	206C10													361.54	221.11		582.65	749.42
101	206C5													324.33	204.67		529.00	717.21
102	206C1													252.11	206.64		458.75	622.53

Data Summary: Cement Kilns, Low Volatile Metals

	2	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	188	189	190
2	Cond ID	Thermal Emission Rating			LVM HW Thermal Emiss (lb/10 <sup>12</sup> Btu)														
3	Number	Camp No	Rating	Rating	Comments														
4					R1	R2	R3	R4	R5	R6	Cond Avg								
5																			
62	323B2	1	NA	Not evaluated: demonstration testing	0.5	1.24	0.8	0.70		2.07									1.33
63	323C9	1	NA	Not evaluated: demonstration testing	29.4	0.88		1.44		0.62									0.98
64	323B3	2	CT			4.71		7.28		3.99									5.33
65	323C1	3	CT									36.30		40.85		102.01			59.72
66	403C10	1	CT		2.2	42.19	2.5	39.53	3.0	32.72		29.24							35.92
67	403C3	2	CT		2.8	8.33	2.2	11.84	2.5	10.71	3.0	9.33							10.05
68	403C1	3	CT		100	38.16	100	35.29	100	33.13	100	35.67							35.56
69	404C10	1	CT			18.52		22.30		17.07		14.19							18.02
70	404C4	2	CT			9.16		5.78		7.00		7.11							7.26
71	404C1	3	CT		100	35.48	100	46.42	100	40.67	100	15.38		13.79		15.04			27.80
72	473C1	1	CT		85.1	11.21	81.9	11.18	80.0	10.24									10.88
73	300C11	1	NA	Data in lieu		16.85		13.46		22.45									17.59
74	300C13																		
75	491C1	2	CT	Data from source 300 represents this kiln		93.51		61.08		131.80									95.46
76	200C10	1	NA	Data in lieu		10.31	1.7	5.09	1.2	10.65									8.68
77	200C11	1	NA	Data in lieu	1.5	6.92	1.1	14.37	1.4	20.18									13.82
78	680C1																		
79	200C10	1	NA	Data in lieu		10.31	1.7	5.09	1.2	10.65									8.68
80	200C11	1	NA	Data in lieu	1.5	6.92	1.1	14.37	1.4	20.18									13.82
81	681C1																		
82	681C2																		
83	3029C11	1	CT			38.62		29.80		27.71									32.04
84	3030C1																		
85	473C1	1	NA	Data in lieu		11.21		11.18		10.24									10.88
86	3031C1																		
87	3031C2																		
88	302C10	1	NA	Data in lieu		1.09		0.77	0.0	0.91									0.92
89	302C12																		
90	302C3	2	NA	Not evaluated: APCS since modified, data in lieu		15.43		11.89	0.0	8.26									11.86
91	302C1	3	NA									11.34		26.20		12.60			16.71
92	473C1	1	NA	Data in lieu		11.21		11.18	0.0	10.24									10.88
93																			
94																			
95	Shutdown or N																		
96	205C10	1	NA	Extrapolation		5.16		3.10		1.91									3.39
97	205C5	2	CT			15.57		27.11		5.68									16.12
98	205C7																		
99	205C1	3	CT			13.65		31.75		28.13									24.51
100	206C10	1	NA	Extrapolation		1.69		1.50		4.78									2.65
101	206C5	2	CT			43.40		21.47		24.45									29.77
102	206C1	3	CT			11.43		13.06		13.23									12.57



Data Summary: Cement Kilns, Low Volatile Metals

	2	191	192	193	194	195	196	197	198	199	200	201	204	205
2	Cond ID	LVM in HW (lb/10 <sup>9</sup> Btu) Cond Avg												
3	Number	R1	R2	R3	R4	R5	R6	Cond Avg						
4														
5														
62	323B2	19.17		15.80		17.75								17.58
63	323C9	11.19	1	14.48	1	14.72								13.46
64	323B3	111.43		105.97		106.24								107.88
65	323C1							214.87		137.99		263.71		205.53
66	403C10	289.12		272.26		281.54		262.86						276.45
67	403C3	147.09		190.93		193.90		158.64						172.64
68	403C1	197.37		197.75		196.37		192.96						196.11
69	404C10	245.42		259.07		271.13		307.22						270.71
70	404C4	270.39		218.19		247.62		278.70						253.72
71	404C1	215.02		274.14		236.05		360.92		226.52		331.88		274.09
72	473C1	62.59		62.47		61.24								62.10
73	300C11	96.56		93.12		93.24								94.31
74	300C13													
75	491C1	288.72		314.36		320.60								307.89
76	200C10	353.82		335.89		463.02								384.24
77	200C11	768.35		1,282.82		2,295.30								1448.83
78	680C1													
79	200C10	353.82		335.89		463.02								384.24
80	200C11	768.35		1,282.82		2,295.30								1448.83
81	681C1													
82	681C2													
83	3029C11	281.73		211.99		214.51								236.08
84	3030C1													
85	473C1	62.59		62.47		61.24								62.10
86	3031C1													
87	3031C2													
88	302C10	193.59		188.51		194.84								192.31
89	302C12													
90	302C3	126.53		114.32		95.36								112.07
91	302C1							201.80		174.77		184.63		187.07
92	473C1	62.59		62.47		61.24								62.10
93														
94														
95	Shutdown or N													
96	205C10	14.84		9.34		13.94								12.70
97	205C5	228.19		245.02		249.17								240.79
98	205C7													
99	205C1	253.46		265.86		294.24								271.19
100	206C10	14.98		10.40		10.87								12.08
101	206C5	225.78		270.85		259.90								252.18
102	206C1	315.23		334.45		346.52								332.07