	B	C
1	**Source Description**	
2		
3	Phase I ID No.	207
4	EPA ID No.	PAD002389559
5	Facility Name	Keystone
6	Facility Location	
7	City	Bath
8	State	PA
9	Unit ID Name/No.	Kiln No. 1
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Cement kiln (CK)
13	Combustor Type	Wet, long
14	Combustor Characteristics	
15	Capacity (MMBtu/hr)	
16	APCS Detailed Acronym	ESP
17	APCS General Class	ESP
18	APCS Characteristics	2 fields, 2 in parallel?, SCA = 288
19	Hazardous Wastes	Liq, sludge
20	Haz Waste Description	
21	Supplemental Fuel	Coal
22		
23	Stack Characteristics	
24	Diameter (ft)	7.8
25	Height (ft)	170.0
26	Gas Velocity (ft/sec)	9.1
27	Gas Temperature (°F)	312.9
28		
29	Permitting Status	Tier I for Hg, Ag, Tl, Sb, and Ba; Tier III for Pb, As, Be, Cd, and Cr
30	HWC Burn Status (Date if Terminated)	Y

	B	C
1	**Condition Description**	
2		
3	**207C10**	
4		
5	Report Name/Date	BIF Recertification of Compliance, Number 1 Kiln, Keystone Cement Company, Bath, Pennsylvania, November 6, 1998
6	Report Prepare	Roy F Weston
7	Testing Firm	Roy F Weston
8	Testing Dates	September 25, 1998
9	Cond Dates	Sep-98
10	Condition Descr	CoC; max metals, chlorine, waste, slurry, min ESP power
11	Content	PM, metals, HCl/Cl2, CO, PCDD/F
12		
13	**207C11**	
14		
15	Report Name/Date	RCRA Trial Burn Test Report, Keystone Cement Company, Kilns No. 1 and No. 2, Bath, PA, Test Dates: 7-10 December 1999, April 2000
16	Report Prepare	R.F. Weston
17	Testing Firm	R.F. Weston
18	Testing Dates	December 7-10, 1999
19	Cond Dates	Dec-99
20	Condition Descr	Trial burn; Low temp POHC DRE, PCDD/PCDF
21	Content	POHC DRE, PCDD/PCDF, PM, HCl/Cl2, HC
22		
23	**207C12**	
24		
25	Report Name/Date	BIF Recertification of Compliance, Cement Kiln No. 1, W. O. No. 02329.030.001, October 4, 2000
26	Report Prepare	R.F. Weston
27	Testing Firm	R.F. Weston
28	Testing Dates	August 30, 2000
29	Cond Dates	Aug-00
30	Condition Descr	CoC, max metals, waste, slurry
31	Content	PM, metals, HCl/Cl2, D/F, CO
32		
33	Comments	
34	Condition 10	
35	Mercury was spiked. Hg stack gas measurements taken, although not reported in main report	
36	Complied with Hg under Tier I	
37		
38	**207C1**	
39		
40	Report Name/Date	BIF Compliance Certification, Cement Kiln Number One, Keystone Cement, Bath PA, August 1992, Amendments submitted January 1993
41	Report Prepare	Roy F. Weston
42	Testing Firm	Roy F. Weston
43	Cond Descr	CoC, MAX PROD, MAX TIER III SPIKE, MAX SLURRY FEED
44	Testing Dates	
45	Cond Dates	Jan-93
46		
47	**207C2**	
48		
49	Report Name/Date	BIF Compliance Certification, Cement Kiln Number One, Keystone Cement, Bath PA, August 1992, Amendments submitted January 1993
50	Report Prepare	Roy F. Weston
51	Testing Firm	Roy F. Weston
52	Cond Descr	CoC, MAX PROD, >25% TIER III SPIKE, MAX SLURRY FEED
53	Testing Dates	
54	Cond Dates	Jan-93
55		
56	**207C3**	
57		
58	Report Name/Date	Keystone Cement Company, Bath, Pennsylvania, Source Emissions Compliance Test Report, Test Dates October 28 - November 1, 1996, January 1997, Work Order No. 0239-019-001
59	Report Prepare	Roy F. Weston
60	Testing Firm	Roy F. Weston
61	Cond Descr	purpose of testing not clear
62	Testing Dates	October 31 - November 1, 1996
63	Cond Dates	Jan-93

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 1**											
2												
3												
4	**207C10**	Max comb temp, max metals, (				R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0268		0.026		0.0299		0.0276
7												
8	CO (MHRA)	E1	ppmv	y		27		28		28		27.7
9												
10	HCl		ppmv			2.48		8.66		11.32		
11	Cl2		ppmv		nd	0.2		0.31		0.28		
12												
13	HCl	E1	ppmv	y		3.9		13.6		17.2		11.6
14	Cl2	E1	ppmv	y	nd	0.3		0.5		0.4		0.4
15	Total Chlorine	E1	ppmv	y	14	4.5		14.6		18.1	2	12.4
16												
17	Arsenic	E2	ug/dscm	y		1.0		0.8		0.7		0.8
18	Cadmium	E2	ug/dscm	y		96.4		147.8		176.4		140.2
19	Beryllium	E2	ug/dscm	y		0.3		0.2		0.2		0.2
20	Lead	E2	ug/dscm	y		547.0		778.0		838.6		721.2
21	Chromium	E2	ug/dscm	y		15.8		16.5		24.9		19.1
22	Chromium (Hex)	E2	ug/dscm	y		0.6	nd	0.1		0.0		0.2
23	Mercury	E2	ug/dscm	y		112.4		132.0		147.0		130.5
24												
25	SVM	E2	ug/dscm	y		643.4		925.8		1015.0		861.4
26	LVM	E2	ug/dscm	y		17.1		17.5		25.8		20.1
27												
28	Sampling Train	PM, HCl	E1									
29	Stack Gas Flowrate		dscfm			48726		49049		48011		48595
30	O2		%			12.1		12.1		11.8		12.0
31	Moisture		%			24.1		24.6		25.1		24.6
32	Temperature		°F			338		339		339		338.7
33												
34	Sampling Train	Metals	E2									
35	Stack Gas Flowrate		dscfm			48519		48203		48243		48322
36	O2		%			12.1		12.1		11.8		12.0
37	Moisture		%			22.7		24.2		24.5		23.8
38	Temperature		°F			338		338		341		339.0
39												
40	**207C11**					R1		R2		R3		Cond Avg
41												
42	HC (RA)	E1	ppmv	y		0.8		0.8		7		2.9
43												
44	PM	E1	gr/dscf	y		0.0124		0.0118		0.0227		0.0156
45												
46	HCl		g/s			0.225		0.359		0.366		
47	Cl2		g/s		nd	0.0057		0.0051		0.0058		
48												
49	HCl	E1	ppmv	y		8.1		11.8		13.0		11.0
50	Cl2	E1	ppmv	y	nd	0.11		0.09		0.11	36	0.1
51	Total Chlorine	E1	ppmv	y	3	8.4		12.0		13.2	1	11.2
52												
53	POHC DRE	PCE (perchloroethylene)										
54	POHC Feedrate		lb/hr			18		18.01		18		
55	Emission Rate	E1	lb/hr		nd	1.10E-03	nd	1.06E-03	nd	1.08E-03		
56	DRE	E1	%		>	99.9939	>	99.9941	>	99.994		
57												
58	POHC DRE	1,2 DCB (Dichlorobenzene)										
59	POHC Feedrate		lb/hr			5.66		5.66		5.66		
60	Emission Rate	E1	lb/hr		nd	6.12E-05	nd	5.98E-05	nd	5.89E-05		
61	DRE	E1	%		>	99.9989	>	99.9989	>	99.999		
62												
63	POHC DRE	TCB (trichlorobenzene)										
64	POHC Feedrate		lb/hr			5.53		5.53		5.53		
65	Emission Rate	E1	lb/hr		nd	6.12E-05	nd	5.98E-05	nd	5.89E-05		
66	DRE	E1	%		>	99.9989	>	99.9989	>	1.00E+02		
67												
68	Sampling Train	PM, HCl	E1									
69	Stack Gas Flowrate		dscfm			47054		50899		48828		48927.0
70	O2		%			9.5		9.3		9.7		9.5
71	Moisture		%			21.3		20.8		22.4		21.5

	B	C	D	E	F	G	H	I	J	K	L	M
72	Temperature		°F			259		253		238		250.0
73												
74	Sampling Train	PCDD/P	E2									
75	Stack Gas Flowrate		dscfm			55590		55562		56340		55830.7
76	O2		%			9.7		9.5		9.9		9.7
77	Moisture		%			21.8		20.7		21.9		21.5
78	Temperature		°F			258		252		237		249.0
79												
80	Sampling Train	metals	E3									
81	Stack Gas Flowrate		dscfm			47930		50427		48619		48992.0
82	O2		%			9.5		9.3		9.7		9.5
83	Moisture		%			21.1		20.5		22.1		21.2
84	Temperature		°F			260		253		237		250.0
85												
86	Antimony	E3	ug/dscm	y		3.24		3.81		2.09		3.0
87	Arsenic	E3	ug/dscm	y	nd	3.72		0.57		0.1	85	1.5
88	Beryllium	E3	ug/dscm	y	nd	0.053		0.036		0.08	31	0.1
89	Cadmium	E3	ug/dscm	y		1.78		1.91		1.15		1.6
90	Chromium	E3	ug/dscm	y		67.56		42.87		248.91		119.8
91	Mercury	E3	ug/dscm	y		1.87		2.76		1.08		1.9
92	Lead	E3	ug/dscm	y		41.52		45.84		44.53		44.0
93	Nickel	E3	ug/dscm	y		40		22.11		123.71		61.9
94	Selenium	E3	ug/dscm	y	nd	5.34	nd	4.86	nd	5.13	100	5.1
95	Thallium	E3	ug/dscm	y	nd	3.19	nd	2.91	nd	3.04	100	3.0
96	SVM	E3	ug/dscm	y		43.3		47.75		45.68		45.6
97	LVM	E3	ug/dscm	y	5	71.3		43.5		249.1	1	121.3
98												
99	**207C12**	Max metals, waste, slurry				R1		R2		R3		Cond Avg
100												
101	PM	E1	gr/dscf	y		0.0274		0.041		0.0209		0.0298
102												
103	CO (MHRA)	E2	ppmv	y		26.7		27.2		31.5		28.5
104												
105	HCl		ppmv	n		3.71		15.57		9.15		
106	Cl2		ppmv	n		0.12	nd	0.1	nd	0.06		
107												
108	HCl	E1	ppmv	y		6.6		26.9		15.3		16.2
109	Cl2	E1	ppmv	y		0.2	nd	0.2	nd	0.1		0.2
110	Total Chlorine	E1	ppmv	y		7.0	1	27.3	1	15.5	1.1	16.6
111												
112	Mercury	E2	ug/dscm	y		17.72	nd	10.69		23.33	21	17.2
113	Arsenic	E2	ug/dscm	y	nd	0.36	nd	0.35	nd	0.33	100	0.3
114	Beryllium	E2	ug/dscm	y		0.04		0.05		0.04		0.0
115	Cadmium	E2	ug/dscm	y		33.65		38.69		10.06		27.5
116	Lead	E2	ug/dscm	y		141.46		190.62		125.96		152.7
117	Chromium	E2	ug/dscm	y		5.97		9.6		4.29		6.6
118	Chromium (Hex)	E2	ug/dscm	y	nd	0.06	nd	0.03	nd	0.06	100	0.1
119												
120	SVM	E2	ug/dscm	y		175.1		229.3		136.0		180.1
121	LVM	E2	ug/dscm	y	6	6.4	4	10.0	7	4.7	5	7.0
122												
123	Sampling Train	PM, HCl	E1									
124	Stack Gas Flowrate		dscfm			54557		53900		53448		53968
125	O2		%			13.1		12.9		12.6		12.9
126	Moisture		%			22.3		23.9		24.2		23.5
127	Temperature		°F			330		342		342		338.0
128												
129	Sampling Train	Metals	E2									
130	Stack Gas Flowrate		dscfm			57523		54332		55356		55737
131	O2		%			13.1		12.9		12.6		12.9
132	Moisture		%			21.7		23.5		23.4		22.9
133	Temperature		°F			330		343		341		338.0
134												
135	Sampling Train	PCDD/P	E3									
136	Stack Gas Flowrate		dscfm			63069		60592		61082		61581
137	O2		%			13		12.7		12.7		12.8
138	Moisture		%			23.8		24.2		24.3		24.1
139	Temperature		°F			332		343		342		339.0

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	**Stack Gas Emissions 2**																	
2																		
3																		
4	**207C1**					R1		R2		R3		R4		R5		R6		Cond Avg
5																		
6	PM	E1	gr/dscf	y		0.0281		0.0256		0.0263		0.0324						0.028
7	CO (MHRA)	E1	ppmv	y		39.00		32.00		28.00		36.00						33.75
8	CO (RA)	E1	ppmv	y		27.00		26.00		25.00		26.00						26.00
9	HCl	E2	ppmv	y		3.35		4.70		4.08		4.61						4.19
10	Cl2	E2	ppmv	y		0.58		0.31		0.27		0.27						0.36
11	Total Chlorine	E2	ppmv	y		4.52		5.32		4.63		5.15						4.91
12	Antimony	E3	ug/dscm	y		0.86	nd	0.77		0.70		0.77						0.77
13	Arsenic	E3	ug/dscm	y	nd	0.78	nd	0.77	nd	0.70		0.77					100	0.75
14	Barium	E3	ug/dscm	y		42.93		41.38		46.19		45.66						44.04
15	Beryllium	E3	ug/dscm	y	nd	0.08	nd	0.08	nd	0.07		0.08					100	0.08
16	Cadmium	E3	ug/dscm	y		440.41		198.68		204.83		133.03						244.24
17	Chromium	E3	ug/dscm	y		158.71		7.48		11.09		46.19						55.87
18	Chromium (Hex)	E4	ug/dscm	y		1.51		1.45		1.38		2.08						1.60
19	Lead	E3	ug/dscm	y		285.30		309.12		277.15		179.23						262.70
20	Mercury	E3	ug/dscm	y		12.63		21.86		19.32		14.10						16.98
21	Nickel	E3	ug/dscm	y		98.61		4.69		6.47		93.70						50.87
22	Silver	E3	ug/dscm	y		1.78		1.15		1.30		0.86						1.27
23	Thallium	E3	ug/dscm	y		0.44		0.41		0.35	nd	0.77						0.49
24	SVM	E3	ug/dscm	y		725.71		507.80		481.98		312.26						506.94
25	LVM	E3	ug/dscm	y	0.5	159.58	10	8.32	6.5	11.86		47.03					###	56.70
26																		
27	Sampling Train	Particulate	E1															
28	Stack Gas Flowrate		dscfm			43700		48200		46000		43500						
29	O2		%			12.9		12		12.5		12.5						
30	Moisture		%			24.9		24.4		25.8		25.4						
31	Temperature		°F			331		324		325		327						
32																		
33	Sampling Train	Halogens	E2															
34	Stack Gas Flowrate		dscfm			42600		44000		44800		43900						
35	O2		%			12.9		12		12.5		12.5						
36	Moisture		%			26.8		25		24.8		25.5						
37	Temperature		°F			332		322		329		328						
38																		
39	Sampling Train	Metals	E3															
40	Stack Gas Flowrate		dscfm			46900		45900		49400		45700						
41	O2		%			12.9		12		12.5		12.5						
42	Moisture		%			25.6		26.4		25.8		26.9						
43	Temperature		°F			332		326		327		326						
44																		
45	Sampling Train	Cr Hex	E4															
46	Stack Gas Flowrate		dscfm			45700		45800		47800		48500						
47	O2		%			13.5		11.5		11.8		11.8						
48	Moisture		%			24.6		25		22.9		17.1						
49	Temperature		°F			331		325		326		326						
50																		
51	Sampling Train	Dioxin & Fu	E5															
52	Stack Gas Flowrate		dscfm			46200		49100		46600								
53	O2		%			13.1		11.7		12.3								
54	Moisture		%			25.2		24.2		25								
55	Temperature		°F			328		325		326								
56																		
57	**207C2**					R1		R2		R3		R4		R5		R6		Cond Avg
58																		
59	PM	E1	gr/dscf	y		0.024		0.022		0.019		0.009		0.018		0.017		0.01808
60	CO (MHRA)	E1	ppmv	y		29.00		28.00		23.00		39.00		37.00		32.00		31.33
61	CO (RA)	E1	ppmv	y		28.00		23.00		21.00		26.00		27.00		25.00		25.00
62	Antimony	E2	ug/dscm	y	nd	0.74	nd	0.68	nd	0.65	nd	0.77	nd	0.60	nd	0.62	100	0.68
63	Arsenic	E2	ug/dscm	y	nd	0.74	nd	0.68	nd	0.65	nd	0.77	nd	0.60	nd	0.62	100	0.68
64	Beryllium	E2	ug/dscm	y	nd	0.07	nd	0.07	nd	0.07	nd	0.08	nd	0.06	nd	0.06	100	0.07
65	Cadmium	E2	ug/dscm	y		415.95		168.27		46.34		46.16		87.00		107.42		145.19
66	Chromium	E2	ug/dscm	y		7.29		6.88		7.17		4.75		293.04		4.62		53.96
67	Chromium (Hex)	E3	ug/dscm	y		1.53		1.78		1.75		1.08		1.14		1.57		1.47
68	Lead	E2	ug/dscm	y		220.08		112.18		49.99		34.30		155.68		104.02		112.71
69	Thallium	E2	ug/dscm	y	nd	0.74		0.70		0.51		0.77		0.43		0.51		0.61
70	LVM	E2	ug/dscm	y	10	8.10	10	7.63	9	7.89	15	5.59	0	293.71	13	5.30	1.4	54.70
71	SVM	E2	ug/dscm	y		636.03		280.45		96.33		80.46		242.68		211.44		257.90

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
72																		
73	Sampling Train	Particulate	E1															
74	Stack Gas Flowrate		dscfm			44400		44400		43800		43400		43800		44300		
75	O2		%			12.1		11.8		11.7		11.4		11.2		11.3		
76	Moisture		%			26		24.6		24.6		25.5		26.1		25.4		
77	Temperature		°F			327		322		323		320		308		320		
78																		
79	Sampling Train	Metals	E2															
80	Stack Gas Flowrate		dscfm			45700		47200		47600		45100		47800		46100		
81	O2		%			12.1		11.8		11.8		12.3		11.2		11.1		
82	Moisture		%			26.6		25.5		25		25.8		25.4		25.5		
83	Temperature		°F			328		323		324		321		311		322		
84																		
85	Sampling Train	Cr Hex	E3															
86	Stack Gas Flowrate		dscfm			46800		47600		46400		45400		47200		50100		
87	O2		%			12.1		11.8		11.7		11.4		11.2		11.3		
88	Moisture		%			22.2		22.7		25.7		26.3		25.8		22.5		
89	Temperature		°F			329		323		326		321		307		318		
90																		
91	**207C3**					R1		R2		R3		R4		R5		R6		Cond Avg
92																		
93	PM	E1	gr/dscf	y		0.008		0.005		0.009								0.00741
94	HCl	E2	ppmv	y		31.47		9.95		5.50								15.64
95	Cl2	E2	ppmv	y		0.08		0.23		0.27								0.19
96	Total Chlorine	E2	ppmv	y		31.63		10.41		6.03								16.02
97	Arsenic	E3	ug/dscm	y	nd	0.65	nd	0.76	nd	0.68							100	0.70
98	Beryllium	E3	ug/dscm	y	nd	0.06	nd	0.08	nd	0.07							100	0.07
99	Cadmium	E3	ug/dscm	y		3.48		1.36		0.75								1.86
100	Chromium (Hex)	E4	ug/dscm	y	nd	0.15	nd	0.18	nd	0.18							100	0.17
101	Lead	E3	ug/dscm	y		19.47		15.69		12.46								15.87
102	Mercury	E3	ug/dscm	y	nd	6.26	nd	7.37		2.49							85	5.37
103	Nickel	E3	ug/dscm	y		7.43		12.25		13.33								11.01
104	SVM	E3	ug/dscm	y		22.94		17.04		13.21								17.73
105	LVM	E3	ug/dscm	y	100	0.71	100	0.84	100	0.74							100	0.76
106																		
107	Sampling Train	Particulate	E1															
108	Stack Gas Flowrate		dscfm			44700		44700		44100								
109	O2		%			10.5		11.4		11								
110	Moisture		%			24		26.2		26.5								
111	Temperature		°F			314		316		313								
112																		
113	Sampling Train	Halogens	E2															
114	Stack Gas Flowrate		dscfm			41200		39800		40100								
115	O2		%			10.5		11.4		11								
116	Moisture		%			23.5		25.9		26.2								
117	Temperature		°F			316		314		312								
118																		
119	Sampling Train	Metals	E3															
120	Stack Gas Flowrate		dscfm			45800		43700		44800								
121	O2		%			10.5		11.4		11								
122	Moisture		%			24.2		25.8		26.2								
123	Temperature		°F			315		315		312								
124																		
125	Sampling Train	Cr Hex	E4															
126	Stack Gas Flowrate		dscfm			47100		45200		46500								
127	O2		%			10.5		11.4		11								
128	Moisture		%			24.6		26.5		24.7								
129	Temperature		°F			313		311		310								
130																		
131	Sampling Train	Dioxin & Fu	E5															
132	Stack Gas Flowrate		dscfm			45200		44500		46500								
133	O2		%			10.5		11.4		11								
134	Moisture		%			22.3		25.1		25.2								
135	Temperature		°F			312		309		309								

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	**Feedstreams 1**																											
2																												
3	**207C10**	Max comb temp, ma			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg	
4																												
5	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3	
6	Feed Class				Raw Material		Raw Material		Raw Material		Raw Material		Coal		Coal		Coal		Coal		Liq HW		Liq HW		Liq HW		Liq HW	
7	Feed Class 2				RM		RM		RM		RM		Coal		Coal		Coal		Coal		HW		HW		HW		HW	
8	Feedstream Description				Raw Matl		Raw Matl		Raw Matl		Raw Matl		Coal		Coal		Coal		Coal		Liq Waste		Liq Waste		Liq Waste		Liq Waste	
9	Feed Rate		g/hr		45,100,000		45,600,000		46,700,000		45,800,000		562,000		563,000		562,000		562,333		2,700,000		2,220,000		2,210,000		2,376,667	
10	Heating Value		Btu/lb										12,198		12,338		11,794		12,110		11,770		13,088		13,148		12,608	
11	Thermal Feedrate		MMBtu/hr		0		0		0		0.0		15		15		15		15		70		64		64		6.60E+01	
12	Chlorine		g/hr		649.5		563.6		565.5		592.87		731.2		759.3		787.43		759.3		31145.0		6037.7		6237.6		14473.4	
13	Antimony		g/hr		22.6		25.6		26.7		24.97		0.59		1.5		1.4		1.2		57		1		1		19.7	
14	Arsenic		g/hr		39.5		53.17		59.36		50.68		7.71		13.84		13.4		11.7		1.4		2.9		3.9		2.7	
15	Barium		g/hr		192.2		226.35		246.3		221.62		45.3		33.75		65.24		48.1		490		32		39		187.0	
16	Beryllium		g/hr		7.53		7.67		8.65		7.95		0.83		0.95		0.81		0.9		0.4		0.4		0.4		0.4	
17	Cadmium		g/hr		0		0		0		0.00		0		0		0		0.0		4.5		0.4		0.4		1.7	
18	Chromium		g/hr		180.4		345.92		309.87		278.73		2.58		7.51		6.64		5.6		70.4		1.1		2.7		24.7	
19	Lead		g/hr		128.1		157.67		160.3		148.69		6.3		6.58		7.14		6.7		137.4		5.3		6.3		49.7	
20	Mercury		g/hr		0.9		0.68		0.93		0.84		0.11		0.11		0.11		0.1		0.1		0.1		0.1		0.1	
21	Silver		g/hr		22.6		22.82		23.37		22.93		0.28		0.28		0.28		0.3		7		2		2		3.7	
22	Thallium		g/hr		22.6		22.82		23.37		22.93		0.42		0.3		0.28		0.3		3		2		2		2.3	
23	Nickel		g/hr		336.1		538.73		383.71		419.51		9		10.3		9.96		9.8		91		1		1.1		31.0	
24	Selenium		g/hr		22.6		22.82		23.37		22.93		1.88		3.11		2.95		2.6		4		2		2.2		2.7	
25																												
26	Stack Gas Flowrate		dscfm		48,519		48,203		48,243		48,322		48,519		48,203		48,243		48,322		48,519		48,203		48,243		48,322	
27	O2		%		12.1		12.1		11.8		12.0		12.1		12.1		11.8		12.0		12.1		12.1		11.8		12.0	
28																												
29	*Feedrate MTEC Calculations*																											
30	Chlorine		ug/dscm		12,401		10,832		10,505		11,240		13,961		14,593		14,628		14,395		594,670		116,037		115,874		274,396	
31	Antimony		ug/dscm		432		492		496		473		11		29		26		22		1,088		19		19		373	
32	Arsenic		ug/dscm		754		1,022		1,103		961		147		266		249		221		27		56		72		52	
33	Barium		ug/dscm		3,670		4,350		4,575		4,202		865		649		1,212		912		9,356		615		724		3,545	
34	Beryllium		ug/dscm		144		147		161		151		16		18		15		16		8		8		8		8	
35	Cadmium		ug/dscm		0		0		0		0		0		0		0		0		86		7		7		33	
36	Chromium		ug/dscm		3,444		6,648		5,756		5,284		49		144		123		106		1,344		22		50		469	
37	Lead		ug/dscm		2,446		3,030		2,978		2,819		120		126		133		127		2,624		102		117		942	
38	Mercury		ug/dscm		17		13		17		16		2		2		2		2		3		2		2		2	
39	Silver		ug/dscm		432		439		434		435		5		5		5		5		134		38		37		70	
40	Thallium		ug/dscm		432		439		434		435		8		6		5		6		57		38		37		44	
41	Nickel		ug/dscm		6,417		10,354		7,128		7,953		172		198		185		185		1,738		19		20		588	
42	Selenium		ug/dscm		432		439		434		435		36		60		55		50		76		38		41		52	
43																												
44	SVM		ug/dscm		2,446		3,030		2,978		2,819		120		126		133		127		2,710		109		124		975	
45	LVM		ug/dscm		4,342		7,817		7,020		6,396		212		429		387		343		1,380		86		130		529	
46																												
47	**207C11**																											
48																												
49	Feedstream Description																											
50	Feed Rate		g/hr																									
51	Thermal Feedrate		MMBtu/hr																									
52																												
53	**207C12**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg	
54																												
55	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3	
56	Feed Class				Raw Material		Raw Material		Raw Material		Raw Material		Coal		Coal		Coal		Coal		Liq HW		Liq HW		Liq HW		Liq HW	
57	Feed Class 2				RM		RM		RM		RM		Coal		Coal		Coal		Coal		HW		HW		HW		HW	
58	Feedstream Description				Raw Matl		Raw Matl		Raw Matl		Raw Matl		Coal		Coal		Coal		Coal		Liq Waste		Liq Waste		Liq Waste		Liq Waste	
59	Feed Rate		g/hr		38,300,000		38,800,000		38,370,000		38,490,000		417,000		489,900		671,000		525,967		2,930,000		2,999,000		2,780,000		2,903,000	
60	Heating Value		Btu/lb										11,976		12,140		12,111		12,084		13,326		11,808		11,595		12,251	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	**Feedstreams 1**															
2																
3	**207C10**	R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
4																
5	Feedstream Number	F4		F4		F4		F4		F5		F5		F5		F5
6	Feed Class	Spike		Spike		Spike		Spike		Total		Total		Total		Total
7	Feed Class 2	Spike		Spike		Spike		Spike		Total		Total		Total		Total
8	Feedstream Description	Spike		Spike		Spike		Spike		Total		Total		Total		Total
9	Feed Rate															
10	Heating Value															
11	Thermal Feedrate									85		79		79		81
12	Chlorine	28,039		38,794		38,803		35,212								
13	Antimony															
14	Arsenic	291		295		295		294								
15	Barium															
16	Beryllium	64		64		64		64								
17	Cadmium	962		981		981		975								
18	Chromium	2,965		2,992		2,987		2,981								
19	Lead	5,571		5,866		5,866		5,767								
20	Mercury	14		14		14		14								
21	Silver															
22	Thallium															
23	Nickel															
24	Selenium															
25																
26	Stack Gas Flowrate	48,519		48,203		48,243		48,322								
27	O2	12.1		12.1		11.8		12.0								
28																
29	*Feedrate MTEC Calculations*															
30	Chlorine	535,367		745,580		720,838		667,574		1,156,400		887,042		861,845		967,605
31	Antimony	0		0		0		0		1,531		540		541		868
32	Arsenic	5,548		5,671		5,482		5,566		6,477		7,015		6,906		6,800
33	Barium	0		0		0		0		13,891		5,614		6,512		8,659
34	Beryllium	1,214		1,222		1,181		1,205		1,382		1,396		1,365		1,380
35	Cadmium	18,377		18,847		18,217		18,477		18,464		18,854		18,224		18,510
36	Chromium	56,605		57,500		55,495		56,521		61,443		64,314		61,424		62,380
37	Lead	106,363		112,731		108,965		109,340		111,553		115,990		112,193		113,228
38	Mercury	269		271		262		267		291		288		283		287
39	Silver	0		0		0		0		571		482		476		510
40	Thallium	0		0		0		0		497		483		476		485
41	Nickel	0		0		0		0		8,327		10,571		7,334		8,727
42	Selenium	0		0		0		0		544		537		530		537
43																
44	SVM	124,740		131,578		127,182		127,817		130,016		134,844		130,417		131,737
45	LVM	63,367		64,393		62,157		63,292		69,301		72,725		69,695		70,560
46																
47	**207C11**															
48																
49	Feedstream Description															
50	Feed Rate															
51	Thermal Feedrate															
52																
53	**207C12**	R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
54																
55	Feedstream Number	F4		F4		F4		F4		F5		F5		F5		F5
56	Feed Class	Spike		Spike		Spike		Spike		Total		Total		Total		Total
57	Feed Class 2	Spike		Spike		Spike		Spike		Total		Total		Total		Total
58	Feedstream Description	Spike		Spike		Spike		Spike		Total		Total		Total		Total
59	Feed Rate															
60	Heating Value															

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
61	Thermal Feedrate		MMBtu/hr		0		0		0		0		11		13		18		14		86		78		71		78	
62	Chlorine		g/hr		3,830		3,880		3,837		3,849		834		882		1,275		997		22,561		13,196		14,178		16,645	
63	Arsenic		g/hr		19.5		215.3		19.2		84.69		7.3		7.6		0.5		5.1		3.9		4.5		7.7		5.4	
64	Beryllium		g/hr		6.4		24.3		6.3		12.29		0.8		0.8		0.2		0.6		0.0		0.0		0.0		0.0	
65	Cadmium		g/hr		19.2		19.4		19.2		19.25		0.2		0.2		0.3		0.3		154.1		153.7		18.8		108.9	
66	Chromium		g/hr		83.1		89.6		80.2		84.31		4.0		2.7		2.1		3.0		39.3		56.2		70.6		55.4	
67	Lead		g/hr		78.5		230.9		77.1		128.83		6.7		6.9		2.2		5.3		90.2		124.2		461.5		225.3	
68	Mercury		g/hr		1.5		1.6		1.5		1.54		0.2		0.1		0.2		0.2		0.1		0.1		1.2		0.5	
69																												
70	Stack Gas Flowrate		dscfm		57,523		54,332		55,356		55,737		57,523		54,332		55,356		55,737		57,523		54,332		55,356		55,737	
71	O2		%		13.1		12.9		12.6		12.9		13.1		12.9		12.6		12.9		13.1		12.9		12.6		12.9	
72																												
73	*Feedrate MTEC Calculations*																											
74	Chlorine		ug/dscm		69,490		72,691		68,036		70,005		15,132		16,521		22,606		18,131		409,336		247,217		251,398		302,732	
75	Arsenic		ug/dscm		354		4,034		340		1,540		133		142		9		93		71		85		137		98	
76	Beryllium		ug/dscm		115		455		111		224		14		15		3		11		0		0		1		0	
77	Cadmium		ug/dscm		347		363		340		350		4		5		6		5		2,796		2,880		334		1,980	
78	Chromium		ug/dscm		1,508		1,679		1,422		1,533		73		51		38		54		712		1,053		1,252		1,007	
79	Lead		ug/dscm		1,425		4,325		1,368		2,343		122		129		38		95		1,637		2,326		8,183		4,098	
80	Mercury		ug/dscm		28		29		27		28		3		3		4		3		2		2		21		8	
81																												
82	SVM		ug/dscm		1,772		4,689		1,708		2,693		126		134		44		100		4,434		5,206		8,516		6,078	
83	LVM		ug/dscm		1,978		6,168		1,873		3,297		220		208		50		158		783		1,138		1,389		1,105	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
61	Thermal Feedrate									97		91		89		92
62	Chlorine															
63	Arsenic															
64	Beryllium															
65	Cadmium															
66	Chromium	2773.94		2773.94		2914.68		2.82E+03								
67	Lead	2515.16		2515.16		2233.68		2.42E+03								
68	Mercury															
69																
70	Stack Gas Flowrate	57,523		54,332		55,356		55,737		57,523		54,332		55,356		55,737
71	O2	13.1		12.9		12.6		12.9		13.1		12.9		12.6		12.9
72																
73	*Feedrate MTEC Calculations*															
74	Chlorine	0		0		0		0		493,958		336,429		342,040		390,868
75	Arsenic	0		0		0		0		558		4,261		486		1,731
76	Beryllium	0		0		0		0		130		470		115		235
77	Cadmium	0		0		0		0		3,147		3,248		680		2,335
78	Chromium	50,329		51,969		51,682		51,305		52,622		54,753		54,394		53,899
79	Lead	45,634		47,121		39,607		44,039		48,818		53,901		49,195		50,575
80	Mercury	0		0		0		0		33		34		51		39
81																
82	SVM	45,634		47,121		39,607		44,039		51,965		57,149		49,875		52,910
83	LVM	50,329		51,969		51,682		51,305		53,310		59,484		54,994		55,865

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	**Feedstream 2**																											
2																												
3																												
4	**207C1**				R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6	
5																												
6	Feedstream Number				F1		F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2	
7	Feed Class				Coal		Coal		Coal		Coal		Coal		Coal		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material	
8	Feed Class 2				Coal		Coal		Coal		Coal		Coal		Coal		RM		RM		RM		RM		RM		RM	
9	Feedstream Description				Coal		Coal		Coal		Coal		Coal		Coal		Raw material		Raw material		Raw material		Raw material		Raw material		Raw material	
10	Feed Rate		lb/hr		3,108		4,470		4,050		5,250						88,972		88,902		88,902		88,712					
11	Heating Value		Btu/lb		13,996		14,027		13,012		14,990																	
12	Thermal Feedrate		MMBtu/hr		43.5		62.7		52.7		78.7																	
13	Chlorine		lb/hr		4.04		6.71		4.79		8.93					nd	17.8	nd	17.8	nd	17.8	nd	17.7					
14	Antimony		lb/hr	nd	0.031	nd	0.036	nd	0.028	nd	0.037					nd	0.890	nd	0.800	nd	0.889	nd	0.887					
15	Arsenic		lb/hr		0.071		0.094		0.089		0.126					nd	0.089	nd	0.089	nd	0.089	nd	0.089					
16	Barium		lb/hr		0.134		0.215		0.203		0.241					nd	1.780	nd	1.780	nd	1.780	nd	1.770					
17	Beryllium		lb/hr		0.009		0.013		0.012		0.015					nd	0.045	nd	0.045	nd	0.045	nd	0.044					
18	Cadmium		lb/hr		0.004		0.002		0.003		0.002					nd	0.045	nd	0.045	nd	0.045		1.240					
19	Chromium		lb/hr		0.047		0.063		0.057		0.068						0.267		0.267		0.356		0.355					
20	Chromium (Hex)		lb/hr																									
21	Lead		lb/hr		0.050		0.036		0.028		0.047						0.356		0.444		0.444		0.621					
22	Mercury		lb/hr		0.001		0.002		0.002		0.002					nd	0.009	nd	0.009	nd	0.009	nd	0.009					
23	Nickel		lb/hr	nd	0.047	nd	0.058		0.049		0.063					nd	0.356		0.444		0.444		0.621					
24	Silver		lb/hr	nd	0.003	nd	0.004	nd	0.003	nd	0.004					nd	0.089	nd	0.080	nd	0.089	nd	0.089					
25	Thallium		lb/hr	nd	0.003	nd	0.004	nd	0.004	nd	0.005					nd	0.089	nd	0.089	nd	0.089	nd	0.089					
26																												
27	Stack Gas Flowrate		dscfm		46900		45900		49400		45700						46900		45900		49400		45700					
28	O2		%		12.9		12		12.5		12.5						12.9		12		12.5		12.5					
29																												
30	*Feedrate MTEC Calculations*																											
31	Chlorine		ug/dscm		39,808		60,801		42,701		86,052					nd	175,391	nd	161,291	nd	158,679	nd	170,563					
32	Antimony		ug/dscm	nd	306	nd	323	nd	253	nd	355					nd	8,770	nd	7,249	nd	7,925	nd	8,547					
33	Arsenic		ug/dscm		704		851		794		1,214					nd	878	nd	805	nd	792	nd	854					
34	Barium		ug/dscm		1,320		1,948		1,810		2,322					nd	17,539	nd	16,129	nd	15,868	nd	17,056					
35	Beryllium		ug/dscm		89		118		108		146					nd	438	nd	403	nd	397	nd	427					
36	Cadmium		ug/dscm		39		16		26		21					nd	438	nd	403	nd	397		11,949					
37	Chromium		ug/dscm		458		567		505		658						2,631		2,419		3,174		3,421					
38	Chromium (Hex)		ug/dscm		0		0		0		0						0		0		0		0					
39	Lead		ug/dscm		491		323		253		455						3,508		4,023		3,958		5,984					
40	Mercury		ug/dscm		13		16		14		21					nd	87	nd	80	nd	79	nd	85					
41	Nickel		ug/dscm	nd	458	nd	527		432		608					nd	3,508		4,023		3,958		5,984					
42	Silver		ug/dscm	nd	30	nd	32	nd	26	nd	36					nd	878	nd	725	nd	792	nd	854					
43	Thallium		ug/dscm	nd	28	nd	36	nd	33	nd	45					nd	878	nd	805	nd	792	nd	854					
44	SVM		ug/dscm		530		339		279		476						3,727		4,225		4,156		11,959					
45	LVM		ug/dscm		1,251		1,536		1,408		2,019						3,289		3,023		3,768		4,061					
46																												
47	**207C2**				R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6	
48																												
49	Feedstream Number				F1		F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2	
50	Feed Class				Coal		Coal		Coal		Coal		Coal		Coal		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material	
51	Feed Class 2				Coal		Coal		Coal		Coal		Coal		Coal		RM		RM		RM		RM		RM		RM	
52	Feedstream Description				Coal		Coal		Coal		Coal		Coal		Coal		Raw material slur		Raw material sl		Raw material slu		Raw material sl		Raw material sl		Raw material slur	
53	Feed Rate		lb/hr		5,052		6,396		5,100		5,250		9,558		8,418		88,890		88,712		88,902		88,902		88,324		88,324	
54	Heating Value		Btu/lb		13,994		18,918		12,980		14,000		14,961		18,057													
55	Thermal Feedrate		MMBtu/hr		71		121		66		74		143		152													
56	Chlorine		lb/hr		7.1		10.9		8.16		8.4		17.2		14.3	nd	17.8	nd	17.7	nd	17.8	nd	17.8	nd	17.7	nd	17.7	
57	Antimony		lb/hr	nd	0.030	nd	0.051	nd	0.051	nd	0.042	nd	0.086	nd	0.076	nd	0.800	nd	0.887	nd	0.711	nd	0.889	nd	0.795	nd	0.795	
58	Arsenic		lb/hr		0.106		0.115		0.107		0.116		0.172		0.160	nd	0.080	nd	0.089	nd	0.089	nd	0.089	nd	0.088	nd	0.088	
59	Barium		lb/hr		0.232		0.294		0.235		0.210		0.449		0.396	nd	1.780	nd	1.770	nd	1.780	nd	1.780	nd	1.770	nd	1.770	
60	Beryllium		lb/hr		0.014		0.021		0.013		0.014		0.029		0.025	nd	0.045	nd	0.044	nd	0.036	nd	0.045	nd	0.044	nd	0.044	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1	**Feedstream 2**																										
2																											
3																											
4	**207C1**	R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1	
5																											
6	Feedstream Number	F3		F3		F3		F3		F3		F3		F4		F4		F4		F4		F4		F4		F5	
7	Feed Class	Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Spike		Spike		Spike	
8	Feed Class 2	HW		HW		HW		HW		HW		HW															
9	Feedstream Description	Liquid waste		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 2	
10	Feed Rate	4,584		4,461		4,506		4,776						208		167		179		178						246	
11	Heating Value	10,995		11,970		12,006		8,606						0		0		0		0						0	
12	Thermal Feedrate	50.4		53.4		54.1		41.1																			
13	Chlorine	73.3		80.3		76.6		76.4																			
14	Antimony															0.000		0.001		0.001						0.009	
15	Arsenic					0.004								0.081		0.074		0.124		0.104						0.030	
16	Barium			0.758		0.108														0.002						0.010	
17	Beryllium																			0.000							
18	Cadmium	0.007		0.058		0.007		0.016						4.030		3.450		3.640		3.240						0.419	
19	Chromium	0.043		0.196		0.019		0.027						0.020		0.018		0.020		0.017						0.857	
20	Chromium (Hex)													0.000		0.000		0.000		0.000						0.343	
21	Lead	0.046		0.803		0.113		0.459						0.016		0.013		0.007		0.028						0.181	
22	Mercury																			0.000						0.000	
23	Nickel			0.040										0.004		0.004		0.004		0.004						0.067	
24	Silver																			0.000						0.000	
25	Thallium																										
26																											
27	Stack Gas Flowrate	46900		45900		49400		45700						46900		45900		49400		45700						46900	
28	O2	12.9		12		12.5		12.5						12.9		12		12.5		12.5						12.9	
29																											
30	*Feedrate MTEC Calculati*																										
31	Chlorine	722,258		727,623		682,856		736,215						0		0		0		0						0	
32	Antimony	0		0		0		0						0		1		8		13						85	
33	Arsenic	0		0		35		0						794		672		1,105		1,002						291	
34	Barium	0		6,868		963		0						0		0		0		21						94	
35	Beryllium	0		0		0		0						0		0		0		1						0	
36	Cadmium	67		526		61		151						39,709		31,262		32,449		31,222						4129	
37	Chromium	419		1,776		169		257						199		159		182		162						8444	
38	Chromium (Hex)	0		0		0		0						0		0		0		0						3380	
39	Lead	452		7,276		1,007		4,423						159		118		58		267						1783	
40	Mercury	0		0		0		0						0		0		0		0						1	
41	Nickel	0		363		0		0						44		34		36		41						657	
42	Silver	0		0		0		0						0		0		0		0						3	
43	Thallium	0		0		0		0						0		0		0		0						0	
44	SVM	520		7,802		1,068		4,574						39,868		31,379		32,507		31,489						5912	
45	LVM	419		1,776		205		257						993		831		1,287		1,165						8735	
46																											
47	**207C2**	R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1	
48																											
49	Feedstream Number	F3		F3		F3		F3		F3		F3		F4		F4		F4		F4		F4		F4		F5	
50	Feed Class	Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Spike		Spike		Spike	
51	Feed Class 2	HW		HW		HW		HW		HW		HW															
52	Feedstream Description	Liquid waste		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 2	
53	Feed Rate	4,584		3,305		3,778		3,683		1,858		2,647		113		68		117		176		73		150		146	
54	Heating Value	13,002		12,012		8,497		10,996		15,016		12,014		0		0		0		0		0		0		0	
55	Thermal Feedrate	60		40		32		41		28		32															
56	Chlorine	119		39.7		35.9		40.5		22.3		25.4															
57	Antimony									0.446		0.476				0.001		0.001		0.001		0.001		0.001		0.019	
58	Arsenic			0.004		0.004		0.003						0.088		0.123		0.168		0.244		0.114		0.221		0.016	
59	Barium	2.060				0.907		0.737		0.204		0.167														0.001	
60	Beryllium																										

	B	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB
1	**Feedstream 2**																									
2																										
3																										
4	**207C1**	R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1		R2
5																										
6	Feedstream Number	F5		F5		F5		F5		F5		F6		F6		F6		F6		F6		F6		F6		F6
7	Feed Class	Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike
8	Feed Class 2																									
9	Feedstream Description	Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 4		Metal spike 4
10	Feed Rate	303		287		243						577		434		491		293						0.3		0.3
11	Heating Value	0		0		0						0		0		0		0						0		0
12	Thermal Feedrate																									
13	Chlorine																									
14	Antimony	0.015		0.020		0.014						0.015		0.016		0.017		0.011								
15	Arsenic	0.027		0.005		0.002						0.025		0.005		0.007		0.004								
16	Barium	0.006		0.002		0.003																				
17	Beryllium																							0.004		0.004
18	Cadmium	0.448		0.067		0.012						0.386		0.150		0.114		0.060								
19	Chromium	1.550		2.020		1.460						0.050		0.025		0.012		0.005								
20	Chromium (Hex)	1.020		1.680		1.180						0.001		0.003		0.002		0.000								
21	Lead	0.145		0.040		0.035						3.620		4.000		5.960		2.760								
22	Mercury	0.000		0.000		0.000						0.001		0.001		0.001		0.000								
23	Nickel	0.191		0.260		0.033						0.150		0.092		0.116		0.066								
24	Silver	0.000		0.000		0.000								0.000		0.000		0.000								
25	Thallium																									
26																										
27	Stack Gas Flowrate	45900		49400		45700						46900		45900		49400		45700						46900		45900
28	O2	12		12.5		12.5						12.9		12		12.5		12.5						12.9		12
29																										
30	*Feedrate MTEC Calculati*																									
31	Chlorine	0		0		0						0		0		0		0						0		0
32	Antimony	135		175		133						152		146		152		109						0		0
33	Arsenic	246		43		20						248		43		61		34						0		0
34	Barium	58		22		26						0		0		0		0						0		0
35	Beryllium	0		0		0						0		0		0		0						43		40
36	Cadmium	4059		596		119						3803		1359		1016		576						0		0
37	Chromium	14045		18007		14069						488		227		105		45						0		0
38	Chromium (Hex)	9243		14976		11371						10		25		18		4						0		0
39	Lead	1314		358		334						35669		36245		53131		26596						0		0
40	Mercury	1		1		1						6		5		5		3						0		0
41	Nickel	1731		2318		314						1478		835		1034		639						0		0
42	Silver	1		0		0						0		1		1		0						0		0
43	Thallium	0		0		0						0		0		0		0						0		0
44	SVM	5373		955		453						39473		37604		54147		27172						0		0
45	LVM	14291		18050		14089						736		270		166		79						43		40
46																										
47	**207C2**	R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1		R2
48																										
49	Feedstream Number	F5		F5		F5		F5		F5		F6		F6		F6		F6		F6		F6		F6		F6
50	Feed Class	Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike
51	Feed Class 2																									
52	Feedstream Description	Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 2		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 3		Metal spike 4		Metal spike 4
53	Feed Rate	65		96		115		113		109		247		38		200		177		84		112		0.25		0.25
54	Heating Value	0		0		0		0		0		0		0		0		0		0		0		0		0
55	Thermal Feedrate																									
56	Chlorine																									
57	Antimony	0.009		0.009		0.013		0.012		0.011		0.007		0.003		0.013		0.007		0.004		0.005				
58	Arsenic	0.006		0.007		0.010		0.005		0.004		0.042		0.002		0.010		0.005		0.004		0.005				
59	Barium	0.001		0.001		0.001		0.001		0.001																
60	Beryllium																							0.004		0.004

	B	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA
1	**Feedstream 2**																									
2																										
3																										
4	**207C1**		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1		R2	
5																										
6	Feedstream Number		F6		F6		F6		F6														F7		F7	
7	Feed Class		Spike		Spike		Spike		Spike														Total		Total	
8	Feed Class 2										Spike		Spike		Spike		Spike		Spike		Spike		Total		Total	
9	Feedstream Description		Metal spike 4		Metal spike 4		Metal spike 4		Metal spike 4														Total		Total	
10	Feed Rate		0.3		0.3																					
11	Heating Value		0		0																					
12	Thermal Feedrate																						93.9		116.1	
13	Chlorine																									
14	Antimony																									
15	Arsenic																									
16	Barium																									
17	Beryllium		0.004		0.004																					
18	Cadmium																									
19	Chromium																									
20	Chromium (Hex)																									
21	Lead																									
22	Mercury																									
23	Nickel																									
24	Silver																									
25	Thallium																									
26																										
27	Stack Gas Flowrate		49400		45700																					
28	O2		12.5		12.5																					
29																										
30	*Feedrate MTEC Calculati*																									
31	Chlorine		0		0						0		0		0		0						937457		949716	
32	Antimony		0		0						236		282		335		255						9312		7854	
33	Arsenic		0		0						1333		961		1209		1057						2915		2616	
34	Barium		0		0						94		58		22		47						18953		25003	
35	Beryllium		39		42						43		40		39		43						571		561	
36	Cadmium		0		0						47641		36680		34062		31916						48186		37625	
37	Chromium		0		0						9131		14431		18294		14276						12639		19194	
38	Chromium (Hex)		0		0						3390		9267		14995		11375						3390		9267	
39	Lead		0		0						37612		37677		53548		27198						42062		49300	
40	Mercury		0		0						7		6		6		4						107		102	
41	Nickel		0		0						2179		2601		3388		994						6145		7514	
42	Silver		0		0						3		2		1		1						911		759	
43	Thallium		0		0						0		0		0		0						906		841	
44	SVM		0		0						85253		74357		87609		59114						90029		86723	
45	LVM		39		42						10508		15432		19543		15376						15466		21767	
46																										
47	**207C2**		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		R1		R2	
48																										
49	Feedstream Number		F6		F6		F6		F6														F7		F7	
50	Feed Class		Spike		Spike		Spike		Spike														Total		Total	
51	Feed Class 2										Spike		Spike		Spike		Spike		Spike		Spike		Total		Total	
52	Feedstream Description		Metal spike 4		Metal spike 4		Metal spike 4		Metal spike 4														Total		Total	
53	Feed Rate		0.25		0.25		0.25		0.25																	
54	Heating Value		0		0		0		0																	
55	Thermal Feedrate																						130		161	
56	Chlorine																									
57	Antimony																									
58	Arsenic																									
59	Barium																									
60	Beryllium		0.004		0.004		0.004		0.004																	

	B	DB	DC	DD	DE	DF	DG	DH	DI	DJ
1	**Feedstream 2**									
2										
3										
4	**207C1**	R3		R4		R5		R6		Cond Avg
5										
6	Feedstream Number	F7		F7		F7		F7		F7
7	Feed Class	Total		Total		Total		Total		Total
8	Feed Class 2	Total		Total		Total		Total		Total
9	Feedstream Description	Total		Total		Total		Total		Total
10	Feed Rate									
11	Heating Value									
12	Thermal Feedrate	106.8		119.8						109.15
13	Chlorine									
14	Antimony									
15	Arsenic									
16	Barium									
17	Beryllium									
18	Cadmium									
19	Chromium									
20	Chromium (Hex)									
21	Lead									
22	Mercury									
23	Nickel									
24	Silver									
25	Thallium									
26										
27	Stack Gas Flowrate									
28	O2									
29										
30	*Feedrate MTEC Calculati*									
31	Chlorine	884236		992830						941060
32	Antimony	8513		9157						8709
33	Arsenic	2830		3125						2871
34	Barium	18662		19426						20511
35	Beryllium	544		616						573
36	Cadmium	34545		44038						41099
37	Chromium	22143		18613						18147
38	Chromium (Hex)	14995		11375						9757
39	Lead	58766		38060						47047
40	Mercury	99		110						104
41	Nickel	7778		7586						7256
42	Silver	819		891						845
43	Thallium	825		898						868
44	SVM	93113		76123						86497
45	LVM	24923		21713						20967
46										
47	**207C2**	R3		R4		R5		R6		Cond Avg
48										
49	Feedstream Number	F7		F7		F7		F7		F7
50	Feed Class	Total		Total		Total		Total		Total
51	Feed Class 2	Total		Total		Total		Total		Total
52	Feedstream Description	Total		Total		Total		Total		Total
53	Feed Rate									
54	Heating Value									
55	Thermal Feedrate	98		114		171		184		143
56	Chlorine									
57	Antimony									
58	Arsenic									
59	Barium									
60	Beryllium									

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
61	Cadmium		lb/hr		0.002		0.017		0.021		0.005	nd	0.004		0.005	nd	0.045	nd	0.044	nd	0.036	nd	0.045	nd	0.044	nd	0.044	
62	Chromium		lb/hr		0.096		0.141		0.071		0.068		0.134		0.118		0.240		0.444		0.364		0.444		0.353		0.336	
63	Chromium (Hex)		lb/hr																									
64	Lead		lb/hr		0.035		0.070		0.061		0.068		0.134		0.101		0.329		0.444		0.444		0.444		0.654		0.442	
65	Mercury		lb/hr		0.002		0.002		0.002		0.002		0.004		0.003	nd	0.009	nd	0.009	nd	0.009	nd	0.009	nd	0.009	nd	0.009	
66	Nickel		lb/hr		0.111		0.109		0.061		0.058		0.124		0.118		0.356		0.444		0.534		0.534		0.442		0.442	
67	Silver		lb/hr	nd	0.003	nd	0.005	nd	0.005	nd	0.004	nd	0.007	nd	0.008	nd	0.080	nd	0.089	nd	0.071	nd	0.089	nd	0.080	nd	0.080	
68	Thallium		lb/hr	nd	0.004	nd	0.004	nd	0.004	nd	0.005	nd	0.008	nd	0.008	nd	0.080	nd	0.089	nd	0.089	nd	0.089	nd	0.088	nd	0.088	
69																												
70	Stack Gas Flowrate		dscfm		45,700		47,200		47,600		45,100		47,800		46,100		45,700		47,200		47,600		45,100		47,800		46,100	
71	O2		%		12.1		11.8		11.8		12.3		11.2		11.1		12.1		11.8		11.8		12.3		11.2		11.1	
72																												
73	*Feedrate MTEC Calculations*																											
74	Chlorine		ug/dscm		65,067		93,960		69,750		80,136		137,442		117,286	nd	163,817	nd	152,577	nd	152,150	nd	169,813	nd	141,438	nd	145,172	
75	Antimony		ug/dscm	nd	278	nd	440	nd	435	nd	402	nd	687	nd	622	nd	7,363	nd	7,646	nd	6,077	nd	8,481	nd	6,353	nd	6,520	
76	Arsenic		ug/dscm		976		991		915		1,107		1,374		1,312	nd	736	nd	764	nd	759	nd	847	nd	706	nd	725	
77	Barium		ug/dscm		2,135		2,534		2,009		2,003		3,588		3,248	nd	16,382	nd	15,258	nd	15,215	nd	16,981	nd	14,144	nd	14,517	
78	Beryllium		ug/dscm		130		177		109		135		229		208	nd	410	nd	382	nd	303	nd	425	nd	352	nd	362	
79	Cadmium		ug/dscm		22		142		183		50	nd	30		42	nd	410	nd	382	nd	303	nd	425	nd	352	nd	362	
80	Chromium		ug/dscm		883		1,215		610		652		1,071		968		2,209		3,827		3,111		4,236		2,821		2,756	
81	Chromium (Hex)		ug/dscm		0		0		0		0		0		0		0		0		0		0		0		0	
82	Lead		ug/dscm		325		606		524		652		1,071		828		3,028		3,827		3,795		4,236		5,226		3,625	
83	Mercury		ug/dscm		14		17		13		21		30		27	nd	81	nd	76	nd	75	nd	84	nd	70	nd	72	
84	Nickel		ug/dscm		1,022		940		524		551		991		968		3,276		3,827		4,564		5,094		3,532		3,625	
85	Silver		ug/dscm	nd	28	nd	44	nd	43	nd	40	nd	53	nd	62	nd	736	nd	764	nd	609	nd	847	nd	636	nd	653	
86	Thallium		ug/dscm	nd	37	nd	32	nd	36	nd	44	nd	62	nd	62	nd	736	nd	764	nd	759	nd	847	nd	706	nd	725	
87	SVM		ug/dscm		347		748		707		702		1,086		870		3,233		4,018		3,947		4,448		5,402		3,806	
88	LVM		ug/dscm		1,988		2,383		1,634		1,893		2,675		2,488		2,782		4,400		3,643		4,872		3,350		3,299	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
61	Cadmium	0.119		0.005		0.045		0.055		0.028		0.025		4.390		2.810		3.500		3.080		1.260		2.440		0.242	
62	Chromium	0.248		0.033		0.181		0.199		0.063		0.048		0.022		0.017		0.025		0.024		0.010		0.019		1.830	
63	Chromium (Hex)													0.000												1.550	
64	Lead	0.275		0.033		0.416		0.442		0.353		0.318		0.018		0.026		0.011		0.024		0.012		0.023		0.295	
65	Mercury					0.000		0.000		0.000										0.000				0.000		0.000	
66	Nickel	0.032		0.020		0.064		0.074		0.009				0.005		0.004		0.005		0.004		0.002		0.004		0.051	
67	Silver							0.004																			
68	Thallium											0.002															
69																											
70	Stack Gas Flowrate	45,700		47,200		47,600		45,100		47,800		46,100		45,700		47,200		47,600		45,100		47,800		46,100		45,700	
71	O2	12.1		11.8		11.8		12.3		11.2		11.1		12.1		11.8		11.8		12.3		11.2		11.1		12.1	
72																											
73	*Feedrate MTEC Calculati*																										
74	Chlorine	1,095,184		342,221		306,864		386,372		178,196		208,326		0		0		0		0		0		0		0	
75	Antimony	0		0		0		0		3,564		3,904		0		7		11		13		5		9		177	
76	Arsenic	0		34		32		27		0		0		807		1,060		1,436		2,328		911		1,813		144	
77	Barium	18,959		0		7,753		7,031		1,630		1,370		0		0		0		0		0		0		6	
78	Beryllium	0		0		0		0		0		0		0		0		0		0		0		0		0	
79	Cadmium	1,095		40		388		528		222		204		40,402		24,223		29,917		29,383		10,068		20,012		2,227	
80	Chromium	2,282		285		1,547		1,898		504		390		202		145		209		224		79		157		16,842	
81	Chromium (Hex)	0		0		0		0		0		0		0		0		0		0		0		0		14,265	
82	Lead	2,531		285		3,556		4,217		2,821		2,608		161		225		90		229		96		191		2,715	
83	Mercury	0		0		4		4		2		0		0		0		0		0		0		0		1	
84	Nickel	296		171		549		702		74		0		44		31		39		42		15		30		473	
85	Silver	0		0		0		42		0		0		0		0		0		0		0		0		0	
86	Thallium	0		0		0		0		0		20		0		0		0		0		0		0		0	
87	SVM	3,626		325		3,944		4,744		3,043		2,812		40,563		24,448		30,007		29,612		10,164		20,204		4,942	
88	LVM	2,282		320		1,579		1,926		504		390		1,009		1,205		1,645		2,552		990		1,970		16,985	

	B	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB
61	Cadmium	0.107		0.116		0.162		0.056		0.051		0.484		0.033		0.157		0.113		0.080		0.100				
62	Chromium	0.882		0.954		1.340		1.220		1.100		0.066		0.001		0.015		0.017		0.011		0.014				
63	Chromium (Hex)	0.722		0.781		1.090		1.080		0.971		0.001		0.000		0.001		0.000		0.000		0.000				
64	Lead	0.102		0.110		0.154		0.131		0.118		3.920		0.938		2.830		1.320		0.908		1.130				
65	Mercury	0.000		0.000		0.000		0.000		0.000		0.001		0.000		0.000		0.000		0.000		0.000				
66	Nickel	0.023		0.024		0.034		0.030		0.027		0.097		0.019		0.070		0.036		0.034		0.042				
67	Silver																									
68	Thallium																									
69																										
70	Stack Gas Flowrate	47,200		47,600		45,100		47,800		46,100		45,700		47,200		47,600		45,100		47,800		46,100		45,700		47,200
71	O2	11.8		11.8		12.3		11.2		11.1		12.1		11.8		11.8		12.3		11.2		11.1		12.1		11.8
72																										
73	*Feedrate MTEC Calculati*																									
74	Chlorine	0		0		0		0		0		0		0		0		0		0		0		0		0
75	Antimony	74		79		124		93		87		64		27		109		62		31		39		0		0
76	Arsenic	55		59		93		37		35		387		19		87		50		31		39		0		0
77	Barium	8		8		13		9		8		0		0		0		0		0		0		0		0
78	Beryllium	0		0		0		0		0		0		0		0		0		0		0		41		38
79	Cadmium	922		992		1,545		448		416		4,454		288		1,342		1,078		642		820		0		0
80	Chromium	7,603		8,155		12,784		9,749		9,022		609		11		130		165		89		114		0		0
81	Chromium (Hex)	6,224		6,676		10,399		8,630		7,964		8		3		8		2		3		3		0		0
82	Lead	879		940		1,469		1,047		968		36,077		8,086		24,190		12,593		7,256		9,268		0		0
83	Mercury	1		1		1		1		1		5		1		3		2		2		2		0		0
84	Nickel	194		208		324		239		221		891		165		597		342		268		343		0		0
85	Silver	0		0		0		0		0		0		0		0		0		0		0		0		0
86	Thallium	0		0		0		0		0		0		0		0		0		0		0		0		0
87	SVM	1,802		1,932		3,015		1,495		1,384		40,531		8,374		25,532		13,671		7,897		10,088		0		0
88	LVM	7,658		8,214		12,876		9,786		9,057		996		31		217		215		120		153		41		38

	B	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA
61	Cadmium																									
62	Chromium																									
63	Chromium (Hex)																									
64	Lead																									
65	Mercury																									
66	Nickel																									
67	Silver																									
68	Thallium																									
69																										
70	Stack Gas Flowrate		47,600		45,100		47,800		46,100																	
71	O2		11.8		12.3		11.2		11.1																	
72																										
73	*Feedrate MTEC Calculati*																									
74	Chlorine		0		0		0		0		0		0		0		0		0		0		1,324,068		588,758	
75	Antimony		0		0		0		0		241		108		199		199		129		135		7,882		8,195	
76	Arsenic		0		0		0		0		1,337		1,135		1,583		2,470		979		1,886		3,049		2,924	
77	Barium		0		0		0		0		6		8		8		13		9		8		37,482		17,800	
78	Beryllium		38		42		35		36		41		38		38		42		35		36		580		597	
79	Cadmium		0		0		0		0		47,084		25,433		32,251		32,007		11,158		21,248		48,611		25,997	
80	Chromium		0		0		0		0		17,653		7,759		8,494		13,173		9,918		9,293		23,026		13,087	
81	Chromium (Hex)		0		0		0		0		14,273		6,226		6,684		10,401		8,633		7,967		14,273		6,226	
82	Lead		0		0		0		0		38,953		9,190		25,220		14,291		8,398		10,427		44,836		13,909	
83	Mercury		0		0		0		0		6		2		4		3		2		3		101		95	
84	Nickel		0		0		0		0		1,408		390		844		708		522		594		6,003		5,328	
85	Silver		0		0		0		0		0		0		0		0		0		0		765		807	
86	Thallium		0		0		0		0		0		0		0		0		0		0		773		796	
87	SVM		0		0		0		0		86,036		34,623		57,471		46,298		19,557		31,675		93,242		39,715	
88	LVM		38		42		35		36		19,031		8,932		10,114		15,685		10,932		11,216		26,082		16,035	

	B	DB	DC	DD	DE	DF	DG	DH	DI	DJ
61	Cadmium									
62	Chromium									
63	Chromium (Hex)									
64	Lead									
65	Mercury									
66	Nickel									
67	Silver									
68	Thallium									
69										
70	Stack Gas Flowrate									
71	O2									
72										
73	*Feedrate MTEC Calculati*									
74	Chlorine	528,763		636,321		457,076		470,784		667,628
75	Antimony	6,711		9,081		10,733		11,181		8,964
76	Arsenic	3,288		4,451		3,060		3,924		3,449
77	Barium	24,985		26,028		19,370		19,143		24,135
78	Beryllium	451		601		617		606		575
79	Cadmium	33,125		33,009		11,763		21,856		29,060
80	Chromium	13,763		19,959		14,313		13,408		16,259
81	Chromium (Hex)	6,684		10,401		8,633		7,967		9,031
82	Lead	33,095		23,395		17,516		17,489		25,040
83	Mercury	96		112		104		102		102
84	Nickel	6,481		7,056		5,119		5,187		5,862
85	Silver	652		929		689		714		759
86	Thallium	795		891		768		806		805
87	SVM	66,068		56,192		29,088		39,164		53,912
88	LVM	16,970		24,375		17,461		17,394		19,720

	B	C	D	E	F	G
1	**Process Information 1**					
2						
3	**207C10**		CoC, max op	R1	R2	R3
4						
5	ESP Power	kVA	min HRA	13	15	15
6	ESP Inlet Temp	F	max HRA	439.9	441.4	442.3
7	Combustion Temp	F	max HRA	1538	1545	1573
8						
9	**207C11**		trial burn, D/F	R1	R2	R3
10						
11	ESP Power	kVA	min HRA	11.5	12	12.3
12	ESP Inlet Temp	F	RA	not available		
13	Combustion Temp	F	RA	1295.3	1274	1272.9
14						
15	**207C12**		CoC, max op	R1	R2	R3
16						
17	ESP Power	kVA	min HRA	14	17	21.6
18	ESP Inlet Temp	F	RA	492.7	498.1	491.2
19	Combustion Temp	F	RA	1514	1541	1525.6

	C	D	E	F	G	H	I	J
1	**Process Information 2**							
2								
3	**207C1**		R1	R2	R3	R4		
4								
5	Combustion Temperature	F	1560	1546	1544	1553		
6	ESP Temperature	F	423	418	417	416		
7	ESP Power	kVA	23	27	26	22		
8								
9	**207C2**		R1	R2	R3	R4	R5	R6
10								
11	Combustion Temperature	F	1562	1541	1515	1511	1548	1512
12	ESP Temperature	F	422	410	415	403	393	407
13	ESP Power	kVA	23	23	23	19	21	23

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**PCDD/PCDF**																	
2	N																	
3	Facility Name and ID:		Keystone Cement, Bath PA															
4	Condition ID:		207C10															
5	Condition/Test Date:		CoC, Sept 25, 1998															
6																		
7			I-TEF			Run 1					Run 2					Run 3		
8			Wght Fact		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ
9					Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND
10	Sample catch (pg)																	
11		2,3,7,8-TCDD	1		10	10.0	10.0	10.0	nd	8	8.0	4.0	4.0	nd	4	4.0	2.0	2.0
12		TCDD Total	0		570	0.0	570.0	0.0		610	0.0	610.0	0.0		1000	0.0	1000.0	0.0
13		1,2,3,7,8-PCDD	0.5	nd	6	3.0	3.0	1.5	nd	10	5.0	5.0	2.5		6	3.0	6.0	3.0
14		PCDD Total	0		300	0.0	300.0	0.0		500	0.0	500.0	0.0		830	0.0	830.0	0.0
15		1,2,3,4,7,8-HxCDD	0.1	nd	10	1.0	5.0	0.5	nd	20	2.0	10.0	1.0	nd	10	1.0	5.0	0.5
16		1,2,3,6,7,8-HxCDD	0.1		10	1.0	10.0	1.0		30	3.0	30.0	3.0		50	5.0	50.0	5.0
17		1,2,3,7,8,9-HxCDD	0.1	nd	10	1.0	5.0	0.5		30	3.0	30.0	3.0		30	3.0	30.0	3.0
18		HxCDD Total	0		720	0.0	720.0	0.0		1400	0.0	1400.0	0.0		1800	0.0	1800.0	0.0
19		1,2,3,4,6,7,8-HpCDD	0.01		90	0.9	90.0	0.9		210	2.1	210.0	2.1		310	3.1	310.0	3.1
20		HpCDD Total	0		220	0.0	220.0	0.0		470	0.0	470.0	0.0		720	0.0	720.0	0.0
21		OCDD	0.001		130	0.1	130.0	0.1		180	0.2	180.0	0.2		250	0.3	250.0	0.3
22		2,3,7,8-TCDF	0.1	nd	4	0.4	2.0	0.2	nd	6	0.6	3.0	0.3	nd	3	0.3	1.5	0.2
23		TCDF Total	0	nd	4	0.0	2.0	0.0		20	0.0	20.0	0.0		10	0.0	10.0	0.0
24		1,2,3,7,8-PCDF	0.05	nd	4	0.2	2.0	0.1	nd	8	0.4	4.0	0.2	nd	4	0.2	2.0	0.1
25		2,3,4,7,8-PCDF	0.5	nd	4	2.0	2.0	1.0	nd	8	4.0	4.0	2.0	nd	4	2.0	2.0	1.0
26		PCDF Total	0	nd	4	0.0	2.0	0.0	nd	8	0.0	4.0	0.0	nd	4	0.0	2.0	0.0
27		1,2,3,4,7,8-HxCDF	0.1	nd	6	0.6	3.0	0.3	nd	10	1.0	5.0	0.5	nd	6	0.6	3.0	0.3
28		1,2,3,6,7,8-HxCDF	0.1	nd	6	0.6	3.0	0.3	nd	10	1.0	5.0	0.5	nd	5	0.5	2.5	0.3
29		2,3,4,6,7,8-HxCDF	0.1	nd	7	0.7	3.5	0.4	nd	10	1.0	5.0	0.5	nd	7	0.7	3.5	0.4
30		1,2,3,7,8,9-HxCDF	0.1	nd	8	0.8	4.0	0.4	nd	10	1.0	5.0	0.5	nd	7	0.7	3.5	0.4
31		HxCDF Total	0	nd	6	0.0	3.0	0.0	nd	20	0.0	10.0	0.0	nd	6	0.0	3.0	0.0
32		1,2,3,4,6,7,8-HpCDF	0.01	nd	8	0.1	4.0	0.0	nd	20	0.2	10.0	0.1	nd	7	0.1	3.5	0.0
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	10	0.1	5.0	0.1	nd	20	0.2	10.0	0.1	nd	10	0.1	5.0	0.1
34		HpCDF Total	0	nd	8	0.0	4.0	0.0	nd	20	0.0	10.0	0.0	nd	9	0.0	4.5	0.0
35		OCDF	0.001	nd	10	0.0	5.0	0.0	nd	20	0.0	10.0	0.0	nd	10	0.0	5.0	0.0
36																		
37		Gas sample volume (dscf)				111.45	111.45	111.45			110.792	110.792	110.792			114.04	114.04	114.04
38		O2 (%)				11.7	11.7	11.7			12.4	12.4	12.4			12.1	12.1	12.1
39																		
40		PCDD/PCDF (sample catch, ng)				0.023	1.956	0.017			0.033	3.214	0.020			0.025	4.625	0.019
41		PCDD/PCDF (ng/dscm @ 7% O2)		46.6		0.011	0.934	0.008	74.7		0.017	1.669	0.011	41.5		0.012	2.254	0.009
42																		
43		TEQ Cond Avg	0.009															
44		Total Cond Avg	1.619															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**PCDD/PCDF**																	
2	N																	
3	Facility Name and ID:		Keystone Cement, Bath PA															
4	Condition ID:		207C11															
5	Condition/Test Date:		Trial burn, Dec 9-10, 1999															
6																		
7			I-TEF			Run 1					Run 2					Run 3		
8			Wght Fact		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ
9					Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND
10	Sample catch (pg)																	
11		2,3,7,8-TCDD	1		800	800.0	800.0	800.0	nd	78	78.0	39.0	39.0		500	500.0	500.0	500.0
12		TCDD Total	0		18000	0.0	18000.0	0.0		75	0.0	75.0	0.0		13000	0.0	13000.0	0.0
13		1,2,3,7,8-PCDD	0.5		2800	1400.0	2800.0	1400.0	nd	57	28.5	28.5	14.3		2500	1250.0	2500.0	1250.0
14		PCDD Total	0		33000	0.0	33000.0	0.0	nd	140	0.0	70.0	0.0		28000	0.0	28000.0	0.0
15		1,2,3,4,7,8-HxCDD	0.1		1300	130.0	1300.0	130.0	nd	42	4.2	21.0	2.1		1100	110.0	1100.0	110.0
16		1,2,3,6,7,8-HxCDD	0.1		1800	180.0	1800.0	180.0	nd	46	4.6	23.0	2.3		1500	150.0	1500.0	150.0
17		1,2,3,7,8,9-HxCDD	0.1		3200	320.0	3200.0	320.0	nd	40	4.0	20.0	2.0		2800	280.0	2800.0	280.0
18		HxCDD Total	0		27000	0.0	27000.0	0.0		25	0.0	25.0	0.0		22000	0.0	22000.0	0.0
19		1,2,3,4,6,7,8-HpCDD	0.01		5600	56.0	5600.0	56.0	nd	88	0.9	44.0	0.4		5300	53.0	5300.0	53.0
20		HpCDD Total	0		14000	0.0	14000.0	0.0	nd	88	0.0	44.0	0.0		14000	0.0	14000.0	0.0
21		OCDD	0.001		4100	4.1	4100.0	4.1		84	0.1	84.0	0.1		3900	3.9	3900.0	3.9
22		2,3,7,8-TCDF	0.1		180	18.0	180.0	18.0	nd	120	12.0	60.0	6.0		75	7.5	75.0	7.5
23		TCDF Total	0		1800	0.0	1800.0	0.0	nd	130	0.0	65.0	0.0		1300	0.0	1300.0	0.0
24		1,2,3,7,8-PCDF	0.05		130	6.5	130.0	6.5	nd	72	3.6	36.0	1.8		61	3.1	61.0	3.1
25		2,3,4,7,8-PCDF	0.5	nd	160	80.0	80.0	40.0	nd	65	32.5	32.5	16.3		58	29.0	58.0	29.0
26		PCDF Total	0		2800	0.0	2800.0	0.0		74	0.0	74.0	0.0		2400	0.0	2400.0	0.0
27		1,2,3,4,7,8-HxCDF	0.1		150	15.0	150.0	15.0		24	2.4	24.0	2.4		140	14.0	140.0	14.0
28		1,2,3,6,7,8-HxCDF	0.1		150	15.0	150.0	15.0		28	2.8	28.0	2.8		170	17.0	170.0	17.0
29		2,3,4,6,7,8-HxCDF	0.1	nd	140	14.0	70.0	7.0		14	1.4	14.0	1.4		42	4.2	42.0	4.2
30		1,2,3,7,8,9-HxCDF	0.1	nd	150	15.0	75.0	7.5	nd	18	1.8	9.0	0.9	nd	28	2.8	14.0	1.4
31		HxCDF Total	0		2800	0.0	2800.0	0.0		91	0.0	91.0	0.0		2600	0.0	2600.0	0.0
32		1,2,3,4,6,7,8-HpCDF	0.01		250	2.5	250.0	2.5		25	0.3	25.0	0.3		210	2.1	210.0	2.1
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	100	1.0	50.0	0.5	nd	24	0.2	12.0	0.1		60	0.6	60.0	0.6
34		HpCDF Total	0		470	0.0	470.0	0.0		25	0.0	25.0	0.0		550	0.0	550.0	0.0
35		OCDF	0.001		290	0.3	290.0	0.3		77	0.1	77.0	0.1		250	0.3	250.0	0.3
36																		
37		Gas sample volume (dscf)				120.059	120.059	120.059			122.925	122.925	122.925			126.494	126.494	126.494
38		O2 (%)				9.7	9.7	9.7			9.5	9.5	9.5			9.9	9.9	9.9
39																		
40		PCDD/PCDF (sample catch, ng)				3.057	104.260	3.002			0.177	0.630	0.092			2.427	88.000	2.426
41		PCDD/PCDF (ng/dscm @ 7% O2)		3.6		1.115	38.018	1.095	96.0		0.062	0.220	0.032	0.1		0.855	31.005	0.855
42																		
43		TEQ Cond Avg	0.661															
44		Total Cond Avg	23.081															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1		**PCDD/PCDF**																
2		N																
3		Facility Name and ID:	Keystone Cement, Bath PA, Kiln No. 1															
4		Condition ID:	207C12															
5		Condition/Test Date:	ReCoC, Aug 30, 2000															
6																		
7			I-TEF				Run 1					Run 2					Run 3	
8			Wght Fact		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ
9					Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND
10		Sample catch (ng)																
11		2,3,7,8-TCDD	1	nd	0.0041	0.0041	0.0	0.00205		0.019	0.019	0.0	0.019	nd	0.0029	0.0029	0.0	0.00145
12		TCDD Total	0		1.1	0	1.1	0		3.8	0	3.8	0		1.8	0	1.8	0
13		1,2,3,7,8-PCDD	0.5		0.0049	0.00245	0.0	0.00245		0.033	0.0165	0.0	0.0165	nd	0.0019	0.00095	0.0	0.000475
14		PCDD Total	0		0.51	0	0.5	0		3.1	0	3.1	0		0.65	0	0.7	0
15		1,2,3,4,7,8-HxCDD	0.1		0.0055	0.00055	0.0	0.00055		0.031	0.0031	0.0	0.0031		0.0048	0.00048	0.0	0.00048
16		1,2,3,6,7,8-HxCDD	0.1		0.015	0.0015	0.0	0.0015		0.11	0.011	0.1	0.011		0.016	0.0016	0.0	0.0016
17		1,2,3,7,8,9-HxCDD	0.1		0.013	0.0013	0.0	0.0013		0.087	0.0087	0.1	0.0087		0.012	0.0012	0.0	0.0012
18		HxCDD Total	0		0.062	0	0.1	0		4.1	0	4.1	0		0.67	0	0.7	0
19		1,2,3,4,6,7,8-HpCDD	0.01		0.13	0.0013	0.1	0.0013		0.89	0.0089	0.9	0.0089		0.12	0.0012	0.1	0.0012
20		HpCDD Total	0		0.024	0	0.0	0		1.7	0	1.7	0		0.24	0	0.2	0
21		OCDD	0.001		0.016	0.000016	0.0	0.000016		0.063	6.3E-05	0.1	6.3E-05		0.14	0.00014	0.1	0.00014
22		2,3,7,8-TCDF	0.1		0.011	0.0011	0.0	0.0011		0.05	0.005	0.1	0.005		0.019	0.0019	0.0	0.0019
23		TCDF Total	0		0.072	0	0.1	0		0.33	0	0.3	0		0.14	0	0.1	0
24		1,2,3,7,8-PCDF	0.05	nd	0.0017	0.000085	0.0	4.25E-05	nd	0.0087	0.00044	0.0	0.00022	nd	0.0021	0.000105	0.0	5.25E-05
25		2,3,4,7,8-PCDF	0.5	nd	0.0042	0.0021	0.0	0.00105	nd	0.018	0.009	0.0	0.0045	nd	0.0061	0.00305	0.0	0.001525
26		PCDF Total	0		0.019	0	0.0	0		0.14	0	0.1	0		0.032	0	0.0	0
27		1,2,3,4,7,8-HxCDF	0.1		0.0031	0.00031	0.0	0.00031		0.019	0.0019	0.0	0.0019		0.003	0.0003	0.0	0.0003
28		1,2,3,6,7,8-HxCDF	0.1	nd	0.0016	0.00016	0.0	0.00008		0.0086	0.00086	0.0	0.00086		0.015	0.0015	0.0	0.0015
29		2,3,4,6,7,8-HxCDF	0.1	nd	0.0028	0.00028	0.0	0.00014	nd	0.017	0.0017	0.0	0.00085	nd	0.0043	0.00043	0.0	0.000215
30		1,2,3,7,8,9-HxCDF	0.1	nd	0.0024	0.00024	0.0	0.00012	nd	0.0041	0.00041	0.0	0.00021	nd	0.002	0.0002	0.0	0.0001
31		HxCDF Total	0		0.0062	0	0.0	0		0.067	0	0.1	0		0.086	0	0.1	0
32		1,2,3,4,6,7,8-HpCDF	0.01		0.0057	0.000057	0.0	0.000057		0.029	0.00029	0.0	0.00029		0.0053	0.000053	0.0	0.000053
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	0.0026	0.000026	0.0	0.000013		0.0061	6.1E-05	0.0	6.1E-05	nd	0.025	0.00025	0.0	0.000125
34		HpCDF Total	0		0.0089	0	0.0	0		0.058	0	0.1	0		0.058	0	0.1	0
35		OCDF	0.001	nd	0.0064	6.4E-06	0.0	3.2E-06	nd	0.018	1.8E-05	0.0	9E-06	nd	0.005	0.000005	0.0	2.5E-06
36																		
37		Gas sample volume (dscf)				121.363	121.363	121.363			116.367	116.367	116.367			118.469	118.469	118.469
38		O2 (%)				13	13	13			12.7	12.7	12.7			12.7	12.7	12.7
39																		
40		PCDD/PCDF (sample catch, ng)				0.016	1.821	0.012			0.087	13.367	0.081			0.016	3.819	0.012
41		PCDD/PCDF (ng/dscm @ 7% O2)		44.9		0.00794	0.928	0.00616	13.3		0.045	6.846	0.042	48.5		0.00818	1.921	0.00620
42																		
43		TEQ Cond Avg	0.018															
44		Total Cond Avg	3.232															

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	**207C1**	I-TEF			R1				R2				R3	
2		Wght Fact		Total	Total	TEQ		Total	Total	TEQ		Total	Total	TEQ
3	ng/dscm			Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND
4														
5	4D 2378	1	1	0.0083	0.0041	0.0041	1	0.0063	0.0031	0.0031	1	0.0058	0.0029	0.0029
6	4D Other	0		1.1221	1.1221	0.0000		0.6644	0.6644	0.0000		0.8530	0.8530	0.0000
7	4D Total	0		1.1303	1.1303	0.0000		0.6707	0.6707	0.0000		0.8588	0.8588	0.0000
8	5D 12378	0.5	1	0.0046	0.0023	0.0012	1	0.0023	0.0012	0.0006	1	0.0031	0.0016	0.0008
9	5D Other	0		0.4896	0.4896	0.0000		0.3040	0.3040	0.0000		0.5720	0.5720	0.0000
10	5D Total	0		0.4942	0.4942	0.0000		0.3064	0.3064	0.0000		0.5751	0.5751	0.0000
11	6D 123478	0.1		0.0047	0.0047	0.0005	1	0.0054	0.0027	0.0003	1	0.0034	0.0017	0.0002
12	6D 123678	0.1		0.0117	0.0117	0.0012		0.0111	0.0111	0.0011		0.0243	0.0243	0.0024
13	6D 123789	0.1		0.0057	0.0057	0.0006		0.0072	0.0072	0.0007	1	0.0125	0.0062	0.0006
14	6D Other	0		0.3528	0.3528	0.0000		0.3068	0.3068	0.0000		0.7207	0.7207	0.0000
15	6D Total	0		0.3749	0.3749	0.0000		0.3305	0.3305	0.0000		0.7608	0.7608	0.0000
16	7D 1234678	0.01		0.0412	0.0412	0.0004		0.0540	0.0540	0.0005		0.1292	0.1292	0.0013
17	7D Other	0		0.0415	0.0415	0.0000		0.0495	0.0495	0.0000		0.1150	0.1150	0.0000
18	7D Total	0		0.0826	0.0826	0.0000		0.1035	0.1035	0.0000		0.2442	0.2442	0.0000
19	8D	0.001	1	0.4487	0.2244	0.0002	1	0.4222	0.2111	0.0002		0.0480	0.0480	0.0000
20	4F 2378	0.1		0.0030	0.0030	0.0003		0.0022	0.0022	0.0002	1	0.0029	0.0014	0.0001
21	4F Other	0		0.0782	0.0782	0.0000		0.0596	0.0596	0.0000		0.0629	0.0629	0.0000
22	4F Total	0		0.0812	0.0812	0.0000		0.0618	0.0618	0.0000		0.0658	0.0658	0.0000
23	5F 12378	0.05		0.0026	0.0026	0.0001		0.0044	0.0044	0.0002	1	0.0009	0.0004	0.0000
24	5F 23478	0.5		0.0021	0.0021	0.0011		0.0059	0.0059	0.0029		0.0044	0.0044	0.0022
25	5F Other	0		0.0276	0.0276	0.0000		0.0348	0.0348	0.0000		0.0226	0.0226	0.0000
26	5F Total	0		0.0324	0.0324	0.0000		0.0451	0.0451	0.0000		0.0279	0.0279	0.0000
27	6F 123478	0.1	1	0.0035	0.0018	0.0002	1	0.0059	0.0029	0.0003	1	0.0010	0.0005	0.0001
28	6F 123678	0.1	1	0.0019	0.0009	0.0001	1	0.0045	0.0022	0.0002	1	0.0009	0.0005	0.0000
29	6F 123789	0.1	1	0.0018	0.0009	0.0001	1	0.0045	0.0023	0.0002	1	0.0010	0.0005	0.0001
30	6F 234678	0.1	1	0.0020	0.0010	0.0001	1	0.0008	0.0004	0.0000	1	0.0003	0.0002	0.0000
31	6F Other	0		-0.0050	-0.0050	0.0000		0.0042	0.0042	0.0000		0.0078	0.0078	0.0000
32	6F Total	0		0.0042	0.0042	0.0000		0.0199	0.0199	0.0000		0.0111	0.0111	0.0000
33	7F 1234678	0.01		0.0072	0.0072	0.0001		0.0131	0.0131	0.0001		0.0072	0.0072	0.0001
34	7F 1234789	0.01	1	0.0035	0.0017	0.0000	1	0.0037	0.0019	0.0000	1	0.0029	0.0015	0.0000
35	7F Other	0		-0.0048	-0.0048	0.0000		-0.0031	-0.0031	0.0000		-0.0003	-0.0003	0.0000
36	7F Total	0		0.0059	0.0059	0.0000		0.0137	0.0137	0.0000		0.0098	0.0098	0.0000
37	8F	0.001		0.0072	0.0072	0.0000		0.0059	0.0059	0.0000		0.0043	0.0043	0.0000
38	Total PCDD/PCDF			2.6616	2.4372			1.9795	1.7684			2.6056	2.6056	
39	TEQ		74.1	0.0162		0.0102	63.1	0.0159		0.0109	61.4	0.0156		0.0108

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	**207C3**	I-TEF			R1				R2				R3	
2		Wght Fact		Total	Total	TEQ		Total	Total	TEQ		Total	Total	TEQ
3	ng/dscm			Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND
4														
5	4D 2378	1		0.0122	0.0122	0.0122		0.0043	0.0043	0.0043		0.0036	0.0036	0.0036
6	4D Other	0		0.2326	0.2326	0.0000		0.0304	0.0304	0.0000		0.0809	0.0809	0.0000
7	4D Total	0		0.2448	0.2448	0.0000		0.0347	0.0347	0.0000		0.0846	0.0846	0.0000
8	5D 12378	0.5		0.0245	0.0245	0.0122		0.0087	0.0087	0.0043		0.0081	0.0081	0.0040
9	5D Other	0		0.1591	0.1591	0.0000		0.0173	0.0173	0.0000		0.0886	0.0886	0.0000
10	5D Total	0		0.1836	0.1836	0.0000		0.0260	0.0260	0.0000		0.0966	0.0966	0.0000
11	6D 123478	0.1		0.0122	0.0122	0.0012		0.0087	0.0087	0.0009		0.0040	0.0040	0.0004
12	6D 123678	0.1		0.0122	0.0122	0.0012		0.0087	0.0087	0.0009		0.0040	0.0040	0.0004
13	6D 123789	0.1		0.0286	0.0286	0.0029		0.0130	0.0130	0.0013		0.0081	0.0081	0.0008
14	6D Other	0		0.1714	0.1714	0.0000		0.0434	0.0434	0.0000		0.0886	0.0886	0.0000
15	6D Total	0		0.2244	0.2244	0.0000		0.0737	0.0737	0.0000		0.1047	0.1047	0.0000
16	7D 1234678	0.01		0.0653	0.0653	0.0007		0.0347	0.0347	0.0003		0.0201	0.0201	0.0002
17	7D Other	0		0.0735	0.0735	0.0000		0.0130	0.0130	0.0000		0.0322	0.0322	0.0000
18	7D Total	0		0.1387	0.1387	0.0000		0.0477	0.0477	0.0000		0.0524	0.0524	0.0000
19	8D	0.001		0.1183	0.1183	0.0001		0.0824	0.0824	0.0001		0.0846	0.0846	0.0001
20	4F 2378	0.1		0.0286	0.0286	0.0029		0.0026	0.0026	0.0003		0.0242	0.0242	0.0024
21	4F Other	0		0.6652	0.6652	0.0000		0.0711	0.0711	0.0000		0.4591	0.4591	0.0000
22	4F Total	0		0.6937	0.6937	0.0000		0.0737	0.0737	0.0000		0.4832	0.4832	0.0000
23	5F 12378	0.05		0.0122	0.0122	0.0006		0.0035	0.0035	0.0002		0.0081	0.0081	0.0004
24	5F 23478	0.5		0.0245	0.0245	0.0122		0.0043	0.0043	0.0022		0.0201	0.0201	0.0101
25	5F Other	0		0.1796	0.1796	0.0000		0.0269	0.0269	0.0000		0.0846	0.0846	0.0000
26	5F Total	0		0.2163	0.2163	0.0000		0.0347	0.0347	0.0000		0.1128	0.1128	0.0000
27	6F 123478	0.1		0.0245	0.0245	0.0024		0.0130	0.0130	0.0013		0.0201	0.0201	0.0020
28	6F 123678	0.1		0.0122	0.0122	0.0012		0.0043	0.0043	0.0004		0.0081	0.0081	0.0008
29	6F 123789	0.1		0.0012	0.0012	0.0001	1	0.0030	0.0015	0.0002	1	0.0016	0.0008	0.0001
30	6F 234678	0.1		0.0163	0.0163	0.0016		0.0087	0.0087	0.0009		0.0081	0.0081	0.0008
31	6F Other	0		0.0518	0.0518	0.0000		0.0143	0.0143	0.0000		0.0346	0.0346	0.0000
32	6F Total	0		0.1061	0.1061	0.0000		0.0434	0.0434	0.0000		0.0725	0.0725	0.0000
33	7F 1234678	0.01		0.0204	0.0204	0.0002		0.0130	0.0130	0.0001		0.0081	0.0081	0.0001
34	7F 1234789	0.01		0.0037	0.0037	0.0000		0.0035	0.0035	0.0000		0.0016	0.0016	0.0000
35	7F Other	0		0.0086	0.0086	0.0000		0.0009	0.0009	0.0000		0.0024	0.0024	0.0000
36	7F Total	0		0.0326	0.0326	0.0000		0.0173	0.0173	0.0000		0.0121	0.0121	0.0000
37	8F	0.001		0.0122	0.0122	0.0000		0.0130	0.0130	0.0000		0.0040	0.0040	0.0000
38	Total PCDD/PCDF			1.9710	1.9710			0.4466	0.4466			1.1074	1.1074	
39	TEQ		0.0	0.0520		0.0520	1.7	0.0178		0.0177	0.6	0.0263		0.0262