

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	404
4	EPA ID No.	ARD981512270
5	Facility Name	Ash Grove Cement Company
6	Facility Location	
7	City	Foreman
8	State	AR
9	Unit ID Name/No.	Kiln No. 3
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	SCA = 580, 4 fields, 20 years old, recently rebuilt to meet 0.04 gr/dscf
19	Hazardous Wastes	Liq, solid
20	Haz Waste Description	Solid haz waste and tires fired in mid-kiln hatch
21	Supplemental Fuel	Coal, natural gas
22		coke
23	Stack Characteristics	
24	Diameter (ft)	11.5
25	Height (ft)	150.0
26	Gas Velocity (ft/sec)	13.2
27	Gas Temperature (°F)	489.1
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	404C10	
4		
5	Report Name/Date	RCRA Cement Kiln Test Burn Report Kiln 3, April 1998
6	Report Prepare	Ash Grove Cement
7	Testing Firm	AirSource Technologies
8	Testing Dates	January 15-16, 1998
9	Cond Dates	Jan-98
10	Condition Descr	Trial burn: Max comb temp, max metals, chlorine, raw material feedrate, max APCD temp, min ESP power
11	Content	CO, HC, HCl/Cl2, metals, PM, D/F
12		
13	404C11	
14		
15	Report Name/Date	RCRA Cement Kiln Test Burn Report Kiln 3, April 1998
16	Report Prepare	Ash Grove Cement
17	Testing Firm	AirSource Technologies
18	Testing Dates	January 17, 1998
19	Cond Dates	Jan-98
20	Condition Descr	Risk burn normal oper cond
21	Content	PM, PSD
22		
23	404C1	
24		
25	Report Name/Date	Ash Grove Cement, Foreman Arkansas, RCRA Trial Burn Report and Certification of Compliance for Kiln No. 3 - July 1992, dated November 1992
26	Report Prepare	Ash Grove
27	Testing Firm	Air Source Technologies
28	Cond Descr	CoC, HIGH COMB TEMP, MIN ESP POWER
29	Testing Dates	July 27, August 6, 1992
30	Cond Dates	Jul-92
31		
32	404C2	
33		
34	Report Name/Date	Ash Grove Cement, Foreman Arkansas, RCRA Trial Burn Report and Certification of Compliance for Kiln No. 3 - July 1992, dated November 1992
35	Report Prepare	Ash Grove
36	Testing Firm	Air Source Technologies
37	Cond Descr	CoC, LOW COMB TEMP, HIGH HW FEED
38	Testing Dates	July 25-26, 1992
39	Cond Dates	Jul-92
40		
41	404C3	
42		
43	Report Name/Date	Ash Grove Cement, Foreman Arkansas, Report of RCRA Trial Burn for Kiln No. 3, January 1995, dated June 1995
44	Report Prepare	Ash Grove
45	Testing Firm	Air Source Technologies
46	Cond Descr	CoC, MAX FEED & CHLORINE, MIN. COMB. TEMP.
47	Testing Dates	January 17-18, 1995
48	Cond Dates	Jan-95
49		
50	404C4	
51		
52	Report Name/Date	Ash Grove Cement, Foreman Arkansas, Report of RCRA Trial Burn for Kiln No. 3, January 1995, dated June 1995
53	Report Prepare	Ash Grove
54	Testing Firm	Air Source Technologies
55	Cond Descr	CoC, MAX FEED, PRODUCTION, CHLORINE, & COMB. TEMP. MIN ESP POWER
56	Testing Dates	Jan 19-21, 1995
57	Cond Dates	Jan-95
58		
59	404C5	
60		
61	Report Name/Date	Ash Grove Cement, Foreman Arkansas, Report of RCRA Trial Burn for Kiln No. 3, January 1995, dated June 1995
62	Report Prepare	Ash Grove
63	Testing Firm	Air Source Technologies
64	Cond Descr	CoC, PM MEASUREMENT
65	Testing Dates	Jan 21-23, 1995

	B	C
66	Cond Dates	Jan-95
67		
68	404C6	
69		
70	Report Name/Date	Data contained in letter from Steven Bales (Ash Grove) to Warren Owens (REI), dated November 18, 1993
71	Report Prepare	Ash Grove
72	Testing Firm	
73	Cond Descr	STUDY THE FORMATION OF DIOXINS & FURANS
74	Testing Dates	October 1, 1993
75	Cond Dates	Oct-93
76		
77	404C7	
78		
79	Report Name/Date	Emissions Testing of Ash Grove Cement Company, Foreman, Arkansas, Waste Derived Fuel Facility Cement Kiln No. 3, prepared for U.S. EPA OSW by EER under EPA Contract No. 68-D2-0164, Work Ass 2-07, May 19, 1995
80	Report Prepare	EER
81	Testing Firm	EER
82	Cond Descr	LOW KILN EXIT TEMP, LOW PARTICULATE MATTER LOADING
83	Testing Dates	January 18-19, 1995
84	Cond Dates	Jan-95
85		
86	404C8	
87		
88	Report Name/Date	Emissions Testing of Ash Grove Cement Company, Foreman, Arkansas, Waste Derived Fuel Facility Cement Kiln No. 3, prepared for U.S. EPA OSW by EER under EPA Contract No. 68-D2-0164, Work Ass 2-07, May 19, 1995
89	Report Prepare	EER
90	Testing Firm	EER
91	Cond Descr	EER/EPA sponsored research testing with copper and water quench
92	Testing Dates	Jan 19-23, 1995
93	Cond Dates	Jan-95
94		
95	404C9	
96		
97	Report Name/Date	Emissions Testing of Ash Grove Cement Company, Foreman, Arkansas, Waste Derived Fuel Facility Cement Kiln No. 3, prepared for U.S. EPA OSW by EER under EPA Contract No. 68-D2-0164, Work Ass 2-07, May 19, 1995
98	Report Prepare	EER
99	Testing Firm	EER
100	Cond Descr	NORMAL OPERATION, HIGH KILN EXIT TEMP
101	Testing Dates	January 25-26, 1995
102	Cond Dates	Jan-95
103		
104	404B1	
105		
106	Report Name/Date	Emissions Testing of Ash Grove Cement Company, Foreman, Arkansas, Waste Derived Fuel Facility Cement Kiln No. 3, prepared for U.S. EPA OSW by EER under EPA Contract No. 68-D2-0164, Work Ass 2-07, May 19, 1995
107	Report Prepare	EER
108	Testing Firm	EER
109	Cond Descr	NORMAL OPERATION, LOW KILN EXIT TEMP
110	Testing Dates	January 26, 1995
111	Cond Dates	Jan-95

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Stack Gas Emissions 1													
2														
3														
4	404C10	Max comb temp, max metals, i				R1	R2	R3	R4	Cond Avg				
5														
6	PM	E1	gr/dscf	y		0.0086	0.023	0.0074	0.0055	0.0111				
7														
8	CO (RA)	E1	ppmv	y		337	427	443	404	402.8				
9	CO (MHRA)	E1	ppmv	y		608	576	659	451	573.5				
10	HC (RA)	E1	ppmv	y		10.9	15.2	14.4	15	13.9				
11	HC (MHRA)	E1	ppmv	y		16.6	17.8	20.7	16.3	17.9				
12														
13	HCl		g/hr			6865	5761	8456	13944					
14	Cl2		g/hr			548	782	780	312					
15														
16	HCl	E1	ppmv	y		27.63	21.64	31.12	54.65	33.8				
17	Cl2	E1	ppmv	y		1.13	1.51	1.48	0.63	1.19				
18	Total Chlorine	E1	ppmv	y		29.89	24.67	34.08	55.91	36.1				
19														
20	Antimony		ug/dscm	n		2.3	2.6	2.6	2					
21	Arsenic		ug/dscm	n		1.5	1.5	1.2	0.9					
22	Barium		ug/dscm	n		14.4	11.4	10.2	9					
23	Beryllium		ug/dscm	n		0.1	0.2	0.2	0.2					
24	Cadmium		ug/dscm	n		8.3	9.4	9.8	9.8					
25	Chromium		ug/dscm	n		10.6	12.6	9.5	7.5					
26	Lead		ug/dscm	n		121.9	132.3	138	146					
27	Mercury		ug/dscm	n		14.2	12.6	14.7	16.8					
28	Nickel		ug/dscm	n		5.4	6.1	5.6	4					
29	Silver		ug/dscm	n		0.5	0.3	2.4	0.5					
30	Selenium		ug/dscm	n		12.7	14.4	19.8	17.5					
31	Thallium		ug/dscm	n		0.8	0.6	0.9	0.6					
32	Zinc		ug/dscm	n		74	54.5	61.4	58.9					
33	Chromium (Hex)		ug/dscm	n		9.2	17.27	13.6	12.2					
34														
35	Sampling Train	PM, HCl E1												
36	Stack Gas Flowrate		dscfm			105997	109419	108014	102714	106536				
37	O2		%			8.25	7.77	7.32	7.49	7.7				
38	Moisture		%			34.24	35.09	36.14	35.47	35				
39	Temperature		°F			431	425	416	436	427				
40														
41	Sampling Train	Metals E2												
42	Stack Gas Flowrate		dscfm			106459	107356	108117	104915	106712				
43	O2		%			7.88	7.84	7.71	7.72	7.8				
44	Moisture		%			35.11	35.8	36.02	35.58	36				
45	Temperature		°F			436	423	419	432	428				
46														
47	Sampling Train	PCDD/P E3												
48	Stack Gas Flowrate		dscfm			103125	111288	107487	110781	108170				
49	O2		%			7.81	7.69	7.71	8.02	7.8				
50	Moisture		%			34.14	34.76	35.61	35.31	35				
51	Temperature		°F			431	422	413	429	424				
52														
53	Antimony	E2	ug/dscm	y		2.5	2.8	2.7	2.1	2.5				
54	Arsenic	E2	ug/dscm	y		1.6	1.6	1.3	0.9	1.4				
55	Barium	E2	ug/dscm	y		15.4	12.1	10.7	9.5	11.9				
56	Beryllium	E2	ug/dscm	y		0.1	0.2	0.2	0.2	0.2				
57	Cadmium	E2	ug/dscm	y		8.9	10.0	10.3	10.3	9.9				
58	Chromium	E2	ug/dscm	y		11.3	13.4	10.0	7.9	10.7				
59	Lead	E2	ug/dscm	y		130.1	140.7	145.4	153.9	142.5				
60	Mercury	E2	ug/dscm	y		15.2	13.4	15.5	17.7	15.4				
61	Nickel	E2	ug/dscm	y		5.8	6.5	5.9	4.2	5.6				
62	Silver	E2	ug/dscm	y		0.5	0.3	2.5	0.5	1.0				
63	Selenium	E2	ug/dscm	y		13.6	15.3	20.9	18.4	17.0				
64	Thallium	E2	ug/dscm	y	nd	0.9	0.6	0.9	0.6	0.8				
65	Zinc	E2	ug/dscm	y		79.0	58.0	64.7	62.1	65.9				
66	Chromium (Hex)	E2	ug/dscm	y		9.8	18.4	14.3	12.9	13.9				
67														
68	SVM	E2	ug/dscm	y		138.9	150.7	155.7	164.2	152.4				
69	LVM	E2	ug/dscm	y		13.0	15.2	11.5	9.1	12.2				
70														
71														

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
72	404C11	Risk burn				R1		R2		R3		R4		Cond Avg
73														
74	CO (RA)	E1	ppmv	y		240		206		205				217.0
75	CO (MHRA)	E1	ppmv	y		261		242		225				242.7
76	HC (RA)	E1	ppmv	y		11.7		8.9		8				9.5
77	HC (MHRA)	E1	ppmv	y		12.8		9.4		8.5				10.2
78														
79	PM	E1	gr/dscf	y		0.0034		0.0123		0.0049				0.0069
80														
81	HCl		g/hr			9973		14679		10145				
82	Cl2		g/hr			8.46		116		687				
83														
84	HCl	E1	ppmv	y		36.46		59.26		35.17				43.6
85	Cl2	E1	ppmv	y		0.02		0.24		1.22				0.5
86	Total Chlorine	E1	ppmv	y		36.49		59.74		37.62				44.6
87														
88	Sampling Train	PM, HCl E1												
89	Stack Gas Flowrate		dscfm			111010		108289		104582				107960.3
90	O2		%			7.6		8.56		6				7.4
91	Moisture		%			30.97		34.18		34.9				33.4
92	Temperature		°F			424		422		430				425.3

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Stack Gas Emissions 2																			
2																				
3																				
4	404C1					R1		R2		R3		R4		R5		R6		Cond Avg		
5																				
6	PM	E1	gr/dscf			0.00468		0.00549		0.00430		0.01834		0.00748		0.00463		0.00749		
7	CO (MHRA)	E1	ppmv			527.00		738.00		824.00		325.00		754.00		793.00		660.2		
8	CO (RA)	E1	ppmv			296.00		540.00		551.00		226.00		558.00		580.00		458.5		
9	HC (MHRA)	E1	ppmv			12.40		16.80		17.70		8.00		9.80		11.30		12.7		
10	HC (RA)	E1	ppmv			9.50		13.60		14.50		7.30		8.70		9.44		10.5		
11	HCl	E1	ppmv			96.28		101.43		81.38		42.52		92.47		18.19		72.0		
12	Cl2	E1	ppmv			2.57		1.91		1.73		3.10		2.11		1.45		2.1		
13	Total Chlorine	E1	ppmv			101.43		105.26		84.84		48.71		96.70		21.09		76.3		
14	Antimony	E2	ug/dscm	nd		116.27	nd	140.11	nd	135.39	nd	102.88	nd	89.02	nd	90.36		112.3		
15	Arsenic	E2	ug/dscm	nd		19.23	nd	23.16	nd	22.36	nd	5.25	nd	4.53	nd	4.62		13.2		
16	Barium	E2	ug/dscm	nd		132.08	nd	122.03	nd	153.48	nd	57.06	nd	52.94	nd	50.09		94.6		
17	Beryllium	E2	ug/dscm	nd		1.15	nd	1.39	nd	1.34	nd	0.16	nd	0.14	nd	0.14		0.7		
18	Cadmium	E2	ug/dscm	nd		3.47	nd	2.78	nd	3.59	nd	3.24	nd	3.85	nd	4.27		3.5		
19	Chromium	E2	ug/dscm	nd		3.09	nd	4.15	nd	3.59	nd	3.64	nd	3.85	nd	4.62		3.8		
20	Chromium (Hex)	E3	ug/dscm				nd	0.59	nd	0.49								0.5		
21	Lead	E2	ug/dscm	nd		62.47	nd	64.12	nd	56.73	nd	46.08	nd	47.24	nd	46.16		53.8		
22	Mercury	E2	ug/dscm	nd		3.80	nd	4.58	nd	3.59	nd	6.86	nd	4.89	nd	2.48	100	4.4		
23	Silver	E2	ug/dscm	nd		3.85	nd	4.63	nd	4.47	nd	2.42	nd	2.09	nd	2.13		3.3		
24	Thallium	E2	ug/dscm	nd		23.84	nd	28.81	nd	27.68	nd	6.43		5.60	nd	5.67		16.3		
25	SVM	E2	ug/dscm	100		65.94	100	66.90	100	60.32	100	49.32	100	51.09	100	50.43	100	57.3		
26	LVM	E2	ug/dscm	100		23.46	100	28.71	100	27.29	100	9.05	100	8.52	100	9.37	100	17.7		
27																				
28	Sampling Train	Particulate	E1																	
29	Stack Gas Flowrate		dscfm			90144		86458		90560		93867		94200		93839				
30	O2		%			5.2		6		5.7		6.3		4		4				
31	Moisture		%			36.7		38.9		38.9		39.3		38.4		39.5				
32	Temperature		°F			510		497		490		516		534		523				
33																				
34	Sampling Train	Metals	E2																	
35	Stack Gas Flowrate		dscfm			92771		88208		89135		94904		92611		89542				
36	O2		%			5.2		6		5.7		6.3		4		4				
37	Moisture		%			38.9		39.7		40.1		39.6		39.9		40.3				
38	Temperature		°F			510		501		495		517		532		521				
39																				
40	Sampling Train	Cr Hex	E3																	
41	Stack Gas Flowrate		dscfm					88944		88452										
42	O2		%					6		5.7										
43	Moisture		%					39.7		10.1										
44	Temperature		°F					503		497										
45																				
46	Sampling Train	Dioxin & Furan	E4																	
47	Stack Gas Flowrate		dscfm			88570		87651		87598										
48	O2		%			5.2		6		5.7										
49	Moisture		%			38.3		39.8		39.9										
50	Temperature		°F			509		500		490										
51																				
52	404C2					R1		R2		R3		R4		R5		R6		Cond Avg		
53																				

high NDs?

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
54	PM	E1	gr/dscf			0.00483		0.00351		0.00419		0.00475						0.00432		
55	CO (MHRA)	E1	ppmv			689.00		645.00		684.00		796.00						703.5		
56	CO (RA)	E1	ppmv			389.00		255.00		409.00		551.00						401.0		
57	HC (MHRA)	E1	ppmv			19.90		20.00		19.20		19.90						19.8		
58	HC (RA)	E1	ppmv			14.90		11.10		14.60		14.60						13.8		
59	HCl	E1	ppmv			46.50		57.93		46.87		64.82						54.0		
60	Cl2	E1	ppmv			2.00	nd	0.06		1.19		0.82						1.0		
61	Total Chlorine	E1	ppmv		0	50.49	0.2	58.04	0	49.25	0	66.46					0.1	56.1		
62																				
63	1,1,1-Trichloroethane	E2	%			0		99.99991		99.9995		99.9998								
64	1,2,4-Trichlorobenzene	E2	%			99.9998		99.99991		99.9998		99.99987								
65	Tetrachloroethene	E2	%			99.997		99.99989		99.9993		99.99988								
66																				
67	Sampling Train	Particulate	E1																	
68	Stack Gas Flowrate		dscfm			89630		98575		89497		88539								
69	O2		%			7.3		6.5		6.8		6.4								
70	Moisture		%			40.9		39		40.7		39.9								
71	Temperature		°F			403		423		400		406								
72																				
73	Sampling Train	SVOC	E2																	
74	Stack Gas Flowrate		dscfm			84250		95141		88263		88567								
75	O2		%			7.3		6.5		6.8		6.4								
76	Moisture		%			42.2		37.9		42.3		40.7								
77	Temperature		°F			401		425		397		406								
78																				
79	404C3					R1		R2		R3		R4		R5		R6		Cond Avg		
80																				
81	PM	E1	gr/dscf			0.02545		0.13225		0.00418		0.00346						0.0413		
82	CO (MHRA)	E1	ppmv			489.00		257.00		388.00		523.00						414.3		
83	CO (RA)	E1	ppmv			353.00		212.00		273.00		285.00						280.8		
84	HC (MHRA)	E1	ppmv			16.30		8.40		13.90		19.40						14.5		
85	HC (RA)	E1	ppmv			11.80		7.40		10.00		10.50						9.9		
86																				
87	1,2,4-Trichlorobenzene	E2	%			99.9998		99.9998		99.9998		99.9998								
88	1,2-dichlorobenzene	E2	%			99.9998		99.9998		100		99.9998								
89	Tetrachloroethene	E2	%			99.9999		99.9999		99.9999		99.9999								
90	trichloroethene	E2	%			99.9999		99.9999		99.9999		99.9999								
91																				
92	Sampling Train	Particulate	E1																	
93	Stack Gas Flowrate		dscfm			88490		88324		83789		93194								
94	O2		%			6.2		6		2.6		3.6								
95	Moisture		%			40.5		40.8		42.3		40.6								
96	Temperature		°F			409		432		424		453								
97																				
98	Sampling Train	SVOC	E2																	
99	Stack Gas Flowrate		dscfm			84515		86335		75623		84472								
100	O2		%			6.2		6		2.6		3.6								
101	Moisture		%			44		43.2		47.3		46.4								
102	Temperature		°F			411		441		432		451								
103																				
104	Sampling Train	Dioxin & Furan	E3																	
105	Stack Gas Flowrate		dscfm			88866		89287		84032		93164								
106	O2		%			6.2		6		2.6		3.6								

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
107	Moisture		%			42		41		43.8		41.8								
108	Temperature		°F			408		438		416		443								
109																				
110	404C4					R1		R2		R3		R4		R5		R6		Cond Avg		
111																				
112	PM	E1	gr/dscf			0.00317		0.00376		0.00287		0.00664						0.0041		
113	CO (MHRA)	E1	ppmv			603.00		1050.00		701.00		686.00						760.0		
114	CO (RA)	E1	ppmv			491.00		952.00		504.00		493.00						610.0		
115	HC (MHRA)	E1	ppmv			7.10		11.90		11.80		9.70						10.1		
116	HC (RA)	E1	ppmv			6.50		10.30		9.70		8.30						8.7		
117	HCl	E1	ppmv			30.44		46.31		49.39		63.44						47.4		
118	Cl2	E1	ppmv			3.31		5.30		4.51		9.00						5.5		
119	Total Chlorine	E1	ppmv			37.06		56.90		58.42		81.44						58.5		
120	Antimony	E2	ug/dscm			0.52		0.45		0.45		1.02						0.6		
121	Arsenic	E2	ug/dscm			1.01		0.60		1.38		0.97						1.0		
122	Barium	E2	ug/dscm			5.55		6.41		5.22		8.12						6.3		
123	Beryllium	E2	ug/dscm			0.31		0.34		0.34		0.46						0.4		
124	Cadmium	E2	ug/dscm			5.95		4.56		5.30		6.22						5.5		
125	Chromium	E2	ug/dscm			4.44		3.38		3.13		4.63						3.9		
126	Chromium (Hex)	E3	ug/dscm			4.44 nd		1.89 nd		1.94 nd		2.56						2.7		
127	Lead	E2	ug/dscm			69.60		64.09		81.84		86.85						75.6		
128	Mercury	E2	ug/dscm			83.72		85.09		68.02		233.01						117.5		
129	Silver	E2	ug/dscm			0.12		0.06		0.13		0.66						0.2		
130	Thallium	E2	ug/dscm			0.80		0.57		0.89		0.86						0.8		
131	SVM	E2	ug/dscm			75.55		68.65		87.14		93.07						81.1		
132	LVM	E2	ug/dscm			5.76		4.32		4.84		6.06						5.2		
133																				
134	1,2,4-Trichlorobenzene	E4	%			99.9996		99.9997		99.9997		99.9997								
135	1,2-dichlorobenzene	E4	%			99.99997		99.9998		99.9998		99.9998								
136	Tetrachloroethene	E4	%			99.9999		99.9999		99.9999		99.9999								
137	trichloroethene	E4	%			99.9999		99.9999		99.9999		99.9999								
138																				
139	Sampling Train	Particulate	E1																	
140	Stack Gas Flowrate		dscfm			99992		96670		100595		100143								
141	O2		%			3.8		5		5.4		9.2								
142	Moisture		%			37.5		38		37.5		37.3								
143	Temperature		°F			521		512		532		523								
144																				
145	Sampling Train	Metals	E2																	
146	Stack Gas Flowrate		dscfm			94990		95622		99391		98895								
147	O2		%			3.8		5		5.4		9.2								
148	Moisture		%			38.4		38.5		38.4		37.5								
149	Temperature		°F			523		509		528		522								
150																				
151	Sampling Train	Cr Hex	E3																	
152	Stack Gas Flowrate		dscfm			99578		99114		100638		99990								
153	O2		%			3.8		5		5.4		9.2								
154	Moisture		%			38.4		38.5		38.4		37.5								
155	Temperature		°F			521		512		529		520								
156																				
157	Sampling Train	SVOC	E4																	
158	Stack Gas Flowrate		dscfm			92071		92107		94527		93273								
159	O2		%			3.8		5		5.4		9.2								

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
160	Moisture		%			42.1		40.8		41.2		42.3								
161	Temperature		°F			533		527		543		525								
162																				
163	404C5					R1		R2		R3		R4		R5		R6		Cond Avg		
164																				
165	PM	E1	gr/dscf			0.02618		0.00536		0.00818		0.00636						0.0115		
166																				
167	Sampling Train	Particulate	E1																	
168	Stack Gas Flowrate		dscfm			97692		87803		99278		89445								
169	O2		%			5.59955556		5.59955556		5.59955556		5.59955556								
170	Moisture		%			39.2		42.8		37.8		40.7								
171	Temperature		°F			472		471		462		434								
172																				
173	Sampling Train	Dioxin & Furan	E2																	
174	Stack Gas Flowrate		dscfm			98012		101091												
175	O2		%			5.59955556		5.59955556												
176	Moisture		%			38.4		38.9												
177	Temperature		°F			472		466												
178																				
179	404C6					R1		R2		R3		R4		R5		R6		Cond Avg		
180																				
181	Sampling Train	Dioxin & Furan	E1																	
182	Stack Gas Flowrate		dscfm			86403.57		88663.41		90040.5		90146.43		90534.84						
183	O2		%			6.34		5.72		6.054		7.388		6.786						
184	Moisture		%																	
185	Temperature		°F																	
186																				
187	404C9					R1		R2		R3		R4		R5		R6		Cond Avg		
188																				
189	CO (MHRA)	E1	ppmv			241.50		440.56										341.03		
190	CO (RA)	E1	ppmv			199.50		307.68										253.59		
191	HC (MHRA)	E1	ppmv			4.81		7.91										6.36		
192	HC (RA)	E1	ppmv			3.94		5.77										4.86		
193																				
194																				
195	Sampling Train	Dioxin & Furan	E1																	
196	Stack Gas Flowrate		dscfm			92590		95045												
197	O2		%			5		3.3												
198	Moisture		%			37.5		37.7												
199	Temperature		°F			490.6		487.5												
200																				
201	404B1					R1		R2		R3		R4		R5		R6		Cond Avg		
202																				
203	CO (MHRA)	E1	ppmv			371.90		477.48										424.69		
204	CO (RA)	E1	ppmv			255.95		267.95										261.95		
205	HC (MHRA)	E1	ppmv			8.16		13.63										10.89		
206	HC (RA)	E1	ppmv			6.70		9.83										8.26		
207																				
208	Sampling Train	Dioxin & Furan	E1																	
209	Stack Gas Flowrate		dscfm			96965		95309												
210	O2		%			4.7		5.9												
211	Moisture		%			37.8		38.3												
212	Temperature		°F			401.4		398.1												

	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	404C10	Max comb temp, ma	R1	R2	R3	R4	Cond Avg	R1	R2	R3	R4	Cond Avg	R1	R2														
4																												
5	Feedstream Number		F1	F1	F1	F1	F1	F2	F2	F2	F2	F2	F3	F3														
6	Feed Class		Raw Material	Raw Material	Raw Material	Raw Material	Raw Material	Coal	Coal	Coal	Coal	Coal	Solid non-HW	Solid non-HW														
7	Feed Class 2		RM	RM	RM	RM	RM	Coal	Coal	Coal	Coal	Coal	MF	MF														
8	Feedstream Description		Raw Matl	Raw Matl	Raw Matl	Raw Matl	Raw Matl	Coal	Coal	Coal	Coal	Coal	Tires	Tires														
9	Feed Rate	g/hr	79700000	80600000	81000000	81400000	80675000	2810000	4810000	3810000	3450000	3720000	1100000	1180000														
10	Heating Value	Btu/lb						11875	11893	11594	12225	11890	15766	15813														
11	Thermal Feedrate	MMBtu/hr						74	126	97	93	97	38	41														
12	Chlorine	g/hr	12000	13700	11300	10600	11900	3440	4920	1610	2280	3063	6590	7080														
13	Antimony	g/hr	62	63.1	63.4	63.7	63	2.19	3.73	2.99	2.71	3	19.8	21.2														
14	Arsenic	g/hr	108	174	130	175	147	71.4	333	135	134	168	1.69	1.82														
15	Barium	g/hr	1650	2020	1730	2070	1868	61.6	133	90.7	86.2	93	9	9.67														
16	Beryllium	g/hr	15.5	15.8	15.9	15.9	16	0.599	1	1.04	0.917	1	0.11	0.118														
17	Cadmium	g/hr	17.6	21.4	23.8	26.8	22	0.548	1.15	0.747	0.765	1	4.84	5.2														
18	Chromium	g/hr	254	431	450	386	380	16.7	29.4	25.8	25.7	24	6.15	6.6														
19	Lead	g/hr	144	229	314	308	249	9.45	18.5	15.5	16.5	15	32.2	34.6														
20	Mercury	g/hr	7.1	6.21	7.21	7.49	7	0.27	0.433	0.354	0.3	0	0.22	0.236														
21	Nickel	g/hr	297	338	322	358	329	40.2	67.3	69.7	66.5	61	6.68	7.18														
22	Silver	g/hr	15.5	15.8	15.9	15.9	16	0.548	0.933	0.747	0.676	1	1.1	1.18														
23	Thallium	g/hr	77.4	78.9	79.2	79.6	79	2.74	4.66	3.73	3.39	4	1.1	1.18														
24	Zinc	g/hr	925	1020	1130	1310	1096	44.4	90.4	64.8	76.2	69	11000	11800														
25																												
26	Stack Gas Flowrate	dscfm	106459	107356	108117	104915	106711.8	106459	107356	108117	104915	106711.8	106459	107356														
27	Oxygen	%	7.9	7.8	7.7	7.7	7.8	7.9	7.8	7.7	7.7	7.8	7.9	7.8														
28																												
29	Estimated Firing Rate	MMBtu/hr																										
30																												
31	<i>Feedrate MTEC Calculations</i>																											
32	Chlorine	ug/dscm	70836	79952	64841	62728	69589	20306	28713	9238	13492	17909	38901	41318														
33	Antimony	ug/dscm	366	368	364	377	369	13	22	17	16	17	117	124														
34	Arsenic	ug/dscm	638	1015	746	1036	858	421	1943	775	793	984	10	11														
35	Barium	ug/dscm	9740	11789	9927	12250	10921	364	776	520	510	543	53	56														
36	Beryllium	ug/dscm	91	92	91	94	92	4	6	6	5	5	1	1														
37	Cadmium	ug/dscm	104	125	137	159	131	3	7	4	5	5	29	30														
38	Chromium	ug/dscm	1499	2515	2582	2284	2224	99	172	148	152	143	36	39														
39	Lead	ug/dscm	850	1336	1802	1823	1455	56	108	89	98	88	190	202														
40	Mercury	ug/dscm	42	36	41	44	41	2	3	2	2	2	1	1														
41	Nickel	ug/dscm	1753	1973	1848	2119	1922	237	393	400	394	356	39	42														
42	Silver	ug/dscm	91	92	91	94	92	3	5	4	4	4	6	7														
43	Thallium	ug/dscm	457	460	454	471	461	16	27	21	20	21	6	7														
44	Zinc	ug/dscm	5460	5953	6484	7752	6411	262	528	372	451	403	64933	68864														
45																												
46	SVM	ug/dscm	954	1461	1938	1981	1586	59	115	93	102	92	219	232														
47	LVM	ug/dscm	2228	3623	3419	3414	3174	524	2121	929	950	1132	47	50														
48																												
49	404C11																											
50																												
51	Feedstream Description																											
52	Feed Rate	g/hr																										
53	Heating Value	Btu/hr																										
54	Chlorine	g/hr																										

	B	BE	BF	BG	BH	BI	BJ	BK	BL
1	Feedstreams 1								
2									
3	404C10		R2		R3		R4		Cond Avg
4									
5	Feedstream Number		F6		F6		F6		F6
6	Feed Class		Total		Total		Total		Total
7	Feed Class 2		Total		Total		Total		Total
8	Feedstream Description		Total		Total		Total		Total
9	Feed Rate								
10	Heating Value								
11	Thermal Feedrate		419.1		374.6		383.2		384.4
12	Chlorine								
13	Antimony								
14	Arsenic								
15	Barium								
16	Beryllium								
17	Cadmium								
18	Chromium								
19	Lead								
20	Mercury								
21	Nickel								
22	Silver								
23	Thallium								
24	Zinc								
25									
26	Stack Gas Flowrate		107356		108117		104915		106711.8
27	Oxygen		7.8		7.7		7.7		7.8
28									
29	Estimated Firing Rate		448.51		456.15		442.31		447.60
30									
31	<i>Feedrate MTEC Calculat.</i>								
32	Chlorine		1177102		1184181		1480141		1282454
33	Antimony		619		559		575		584
34	Arsenic		73625		75599		84732		76018
35	Barium		13103		10523		12998		11699
36	Beryllium		3072		2929		3115		2919
37	Cadmium		11502		10911		13874		11466
38	Chromium		100010		103864		109708		103323
39	Lead		159498		168067		172798		165089
40	Mercury		44		49		52		49
41	Nickel		2571		2350		2627		2431
42	Silver		113		111		114		112
43	Thallium		536		524		543		532
44	Zinc		81588		80224		82317		79928
45									
46	SVM		171000		178978		186672		176554
47	LVM		176707		182392		197555		182261
48									
49	404C11								
50									
51	Feedstream Description								
52	Feed Rate								
53	Heating Value								
54	Chlorine								

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY								
1	Feedstreams 2																																
2																																	
3																																	
4	404C1	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5																				
5																																	
6	Feedstream Number	F2	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3																				
7	Feed Class	Liq HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW																				
8	Feed Class 2												HW	HW	HW	HW	HW																
9	Feedstream Description	Solid waste																															
10	Feedrate	14620	5320	5220	4980	4780	4680	4680																									
11	Heating value	14295	9906	8716	8896	9958	8162	7949																									
12	Thermal Feedrate	209	52.7	45.5	44.3	47.6	38.2	37.2	252	212	236	215	253																				
13	Chlorine	556	11	26	15	124	19	23	1																								
14	Antimony	0.04386	0.09576	0.39672	0.11454	0.01912	1	0.01404	1	0.01404	1																						
15	Arsenic	2.0468	0.0266	0.027144	0.03486	0.08604	0.0702	0.06552	1																								
16	Barium	32.164	1.2236	11.484	5.478	2.39	2.4336	5.85																									
17	Beryllium	0.001462	1	0.000266	1	0.000261	1	0.000478	1	0.001404	1	0.000468																					
18	Cadmium	1.28656	0.051072	0.42804	0.01245	0.016252	0.15444	0.014508	1																								
19	Chromium	23.392	2.5536	3.6018	1.0458	0.956	3.1824	3.6036																									
20	Lead	9.2106	0.8512	4.3848	2.8884	2.1032	1.5912	4.2588	1																								
21	Mercury	0.002924	1	0.001064	0.00261	1	0.000996	0.008604	0.003744	0.004212	1																						
22	Silver	0.008772	1	0.01596	0.20358	0.0996	0.035372	1	0.002808	0.010296	1																						
23	Thallium	0.05848	1	0.266	1	0.261	1	0.249	1	0.0956	1	0.0936	1																				
24																																	
25	Gas flowrate	89542	92771	88208	89135	94904	92611	89542																									
26	Oxygen	4	5.2	6	5.7	6.3	4	4																									
27																																	
28	Estimated Firing Rate																																
29																																	
30	<i>Feedrate MTECs</i>																																
31	Chlorine	1367242	28091	73556	41172	332710	45174	56559	1460740	1906808	1701760	1862104	1502629																				
32	Antimony	108	245	1122	314	51	100	33	100	35	465	1367	552	169	172	24																	
33	Arsenic	5033	68	77	96	231	167	161	4475	4965	4839	8861	5374																				
34	Barium	79093	3125	32489	15036	6413	5786	14386	26627	71599	53770	88791	75211																				
35	Beryllium	4	100	1	100	1	100	3	100	1	287	384	673	25	5	49	7																
36	Cadmium	3164	130	1211	34	44	367	36	571	1659	667	2986	3144																				
37	Chromium	57523	6521	10190	2870	2565	7566	8861	18273	31374	21052	65329	59635																				
38	Lead	22649	2174	12405	7928	5643	3783	10473	75619	81661	94882	31533	25305																				
39	Mercury	7	100	3	7	100	3	23	9	10	25	21	36	38	75	31	19																
40	Silver	22	100	41	576	273	95	100	7	25	63	96	600	297	118	28	54																
41	Thallium	144	100	679	100	738	100	683	100	257	100	223	100	230	826	82	901	81	842	62	413	62	361	62									
42	SVM	25813	2304	13616	7962	5687	4150	10508	76190	83320	95549	34519	28449																				
43	LVM	62559	6590	10267	2967	2797	7737	9024	23034	36723	26563	74195	65016																				
44																																	
45																																	
46																																	
47	404C2	R6	R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5																				
48																																	
49	Feedstream Number												F3	F3	F3	F3																	
50	Feed Class												Solid HW	Solid HW	Solid HW	Solid HW																	
51	Feed Class 2																							HW	HW	HW	HW	HW					
52	Feedstream Description	Solid waste																															
53	Feedrate	4760											5140	4340	4300																		
54	Heating value	8445											6381	6682	7233																		
55	Thermal Feedrate	40.2											32.8	29	31.1	331.2	339.8	254	216.1														
56	Chlorine	114											283	104	267	1																	
57																																	
58	Gas flowrate	89630											98575	89497	88539																		
59	Oxygen	7.3											6.5	6.8	6.4																		
60																																	

	B	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
1	Feedstreams 2																						
2																							
3																							
4	404C1	R6		R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
5																							
6	Feedstream Number			F4		F4		F4		F4		F4		F4		F4		F4		F4		F4	
7	Feed Class			Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material		Raw Material	
8	Feed Class 2	HW		RM		RM		RM		RM		RM		RM		RM		RM		RM		RM	
9	Feedstream Description			Raw material																Organic liquid spike			
10	Feedrate			178280		177240		176720		158500		158260		159380									
11	Heating value																						
12	Thermal Feedrate	246																					
13	Chlorine			178	1	177	1	177	1	159	1	158	1	159									
14	Antimony			1.06968	1	1.06344	1	1.06032	1	0.4755	1	0.47478	1	0.47814									
15	Arsenic			0.53484	1	0.53172	1	0.53016	1	0.4755	1	0.47478	1	0.47814									
16	Barium			4.99184		3.72204		4.94816		3.804		3.63998		5.25954									
17	Beryllium			0.035656		0.035448		0.035344		0.0317		0.031652		0.031876									
18	Cadmium			0.071312	1	0.070896	1	0.070688	1	0.0634	1	0.063304	1	0.063752									
19	Chromium			0.784432		0.691236		0.742224		0.317		0.253216		0.525954									
20	Lead			0.53484	1	0.53172	1	0.53016	1	0.7925	1	0.7913	1	0.7969									
21	Mercury			0.0035656	1	0.0035448	1	0.0035344	1	0.00317	1	0.0031652	1	0.0031876									
22	Silver			0.106968	1	0.106344	1	0.106032	1	0.0951	1	0.094956	1	0.095628									
23	Thallium			0.71312	1	0.70896	1	0.70688	1	0.634	1	0.63304	1	0.63752									
24																							
25	Gas flowrate			92771		88208		89135		94904		92611		89542		92771		88208		89135		94904	
26	Oxygen			5.2		6		5.7		6.3		4		4		5.2		6		5.7		6.3	
27																							
28	Estimated Firing Rate																						
29																							
30	<i>Feedrate MTECs</i>																						
31	Chlorine	1423800	100	454566	100	500749	100	485825	100	426620	100	375657	100	390992									
32	Antimony	142	100	2732	100	3009	100	2910	100	1276	100	1129	100	1176									
33	Arsenic	5194	100	1366	100	1504	100	1455	100	1276	100	1129	100	1176									
34	Barium	93479		12748		10530		13582		10207		8654		12934									
35	Beryllium	5		91		100		97		85		75		78									
36	Cadmium	3199	100	182	100	201	100	194	100	170	100	151	100	157									
37	Chromium	66384		2003		1956		2037		851		602		1293									
38	Lead	33122	100	1366	100	1504	100	1455	100	2126	100	1881	100	1960									
39	Mercury	18	100	9	100	10	100	10	100	9	100	8	100	8									
40	Silver	47	100	273	100	301	100	291	100	255	100	226	100	235									
41	Thallium	374	100	1821	100	2006	100	1940	100	1701	100	1505	100	1568									
42	SVM	36322	100	1548	100	1705	100	1649	100	2297	100	2032	100	2116									
43	LVM	71583	39	3460	42	3560	41	3589	58	2211	63	1806	46	2548									
44																							
45																							
46																							
47	404C2	R6		R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
48																							
49	Feedstream Number			F4		F4		F4		F4		F4		F4		F5		F5		F5		F5	
50	Feed Class			Raw material		Raw material		Raw material		Raw material		Raw material		Raw material		Spike		Spike		Spike		Spike	
51	Feed Class 2	HW																					
52	Feedstream Description			Raw material												Organic liquid spike							
53	Feedrate			179380		179220		178400		178800						96		113		109		101	
54	Heating value																						
55	Thermal Feedrate																						
56	Chlorine			179.38	1	179.22	1	178.4	1	178.8					76.512		90.061		86.873		80.497		
57																							
58	Gas flowrate			89630		98575		89497		88539					89630		98575		89497		88539		
59	Oxygen			7.3		6.5		6.8		6.4					7.3		6.5		6.8		6.4		
60																							

	B	BV	BW	BX	BY	BZ	CA	CB	C	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CN	CO	CP	CQ	CR	CS	CT	CI	CV										
1	Feedstreams 2																																				
2																																					
3																																					
4	404C1	R5		R6		R1		R2		R3		R4		R5		R6		R1	R2	R3	R4	R5	R6														
5																																					
6	Feedstream Number																			F5	F5	F5	F5	F5	F5												
7	Feed Class																			Spike	Spike	Spike	Spike	Spike	Spike												
8	Feed Class 2																																				
9	Feedstream Description																			Organic liquid spike						Liquid metal spike											
10	Feedrate																																				
11	Heating value																																				
12	Thermal Feedrate																																				
13	Chlorine																																				
14	Antimony																																				
15	Arsenic																			7.4	7.4	7.5	13.3	8.21	14.4												
16	Barium																																				
17	Beryllium																																				
18	Cadmium																						1.4	0.899	1.57												
19	Chromium																			37.7	37.6	38.6	36.5	21.8	38.2												
20	Lead																																				
21	Mercury																																				
22	Silver																																				
23	Thallium																																				
24																																					
25	Gas flowrate	92611		89542		92771		88208		89135		94904		92611		89542		92771	88208	89135	94904	92611	89542														
26	Oxygen	4		4		5.2		6		5.7		6.3		4		4		5.2	6	5.7	6.3	4	4														
27																																					
28	Estimated Firing Rate																																				
29																																					
30	<i>Feedrate MTECs</i>																																				
31	Chlorine																			0	0	0	0	0	0												
32	Antimony																			0	0	0	0	0	0												
33	Arsenic																			18898	20935	20586	35686	19520	35411												
34	Barium																			0	0	0	0	0	0												
35	Beryllium																			0	0	0	0	0	0												
36	Cadmium																			0	0	0	3756	2137	3861												
37	Chromium																			96276	106374	105948	97935	51831	93936												
38	Lead																			0	0	0	0	0	0												
39	Mercury																			0	0	0	0	0	0												
40	Silver																			0	0	0	0	0	0												
41	Thallium																			0	0	0	0	0	0												
42	SVM																			0	0	0	3756	2137	3861												
43	LVM																			115174	127309	126534	133621	71351	129347												
44																																					
45																																					
46																																					
47	404C2	R5		R6		R1		R2		R3		R4		R5		R6		R1	R2	R3	R4	R5	R6														
48																																					
49	Feedstream Number																			F6	F6	F6	F6	F6	F6	F7	F7	F7	F7	F7	F7						
50	Feed Class																			Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike						
51	Feed Class 2																																				
52	Feedstream Description																			Organic liquid spike						Liquid metal spike											
53	Feedrate																			134		127		147		136											
54	Heating value																																				
55	Thermal Feedrate																																				
56	Chlorine																			78.524		74.422		86.142		79.696											
57																																					
58	Gas flowrate																			89630		98575		89497		88539	89630	98575	89497	88539							
59	Oxygen																			7.3		6.5		6.8		6.4	7.3	6.5	6.8	6.4							
60																																					

	B	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV					
1	Feedstreams 2																															
2																																
3																																
4	404C1		R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		Cond Avg					
5																																
6	Feedstream Number															F6	F6	F6	F6	F6	F6	F6										
7	Feed Class															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total		
8	Feed Class 2	Spike		Spike		Spike		Spike		Spike		Spike		Spike		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total					
9	Feedstream Description															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total			
10	Feedrate																															
11	Heating value																															
12	Thermal Feedrate															406	378	414	417	450	440	417										
13	Chlorine																															
14	Antimony																															
15	Arsenic																															
16	Barium																															
17	Beryllium																															
18	Cadmium																															
19	Chromium																															
20	Lead																															
21	Mercury																															
22	Silver																															
23	Thallium																															
24																																
25	Gas flowrate															92771	88208	89135	94904	92611	89542	91195.1667										
26	Oxygen															5.2	6	5.7	6.3	4	4	5.2										
27																																
28	Estimated Firing Rate															465.3	420.0	432.9	442.9	499.8	483.2	457.4										
29																																
30	<i>Feedrate MTECs</i>																															
31	Chlorine	0	0	0	0	0	0	24.9	1945951	22	2444335	24	2228756	20	2328971	21	1913950	23	1851678	22	2118940											
32	Antimony	0	0	0	0	0	0	86.3	3382	70	4600	85	3711	90	1769	89	1513	94	1714	83	2781											
33	Arsenic	18898	20935	20586	35686	19520	35411	5.14	26589	5	30781	5	29955	3	49383	4	28598	3	46095	3.7	35234											
34	Barium	0	0	0	0	0	0	0	40393		83404		68848		100535		86053		108354		81265											
35	Beryllium	0	0	0	0	0	0	0	391		499		786	1	106	3	110		101	0.2	332											
36	Cadmium	0	0	0	3756	2137	3861	25.4	766	11	1875	24	877	3	6928	3	5446	2	7231	4.9	3854											
37	Chromium	96276	106374	105948	97935	51831	93936		116663		139801		129096		164325		112386		161901		137362											
38	Lead	0	0	0	0	0	0	1.77	77109	2	83466	2	96587	6	33822	7	27398	6	35262	2.9	58940											
39	Mercury	0	0	0	0	0	0	23.5	39	32	54	17	55	71	45	24	31	26	30	33	43											
40	Silver	0	0	0	0	0	0	82.3	354	97	924	52	613	70	398	90	274	93	304	81	478											
41	Thallium	0	0	0	0	0	0	73.4	3110	95	3470	95	3405	95	2924	95	2572	95	2661	91	3024											
42	SVM	0	0	0	3756	2137	3861	2	77874	2	85340	2	97464	6	40750	6	32844	5	42493	3	62794											
43	LVM	115174	127309	126534	133621	71351	129347	0.95	143643	1	171081	1	159837	1	213815	1	141095	1	208097	0.8	172928											
44																																
45																																
46																																
47	404C2		R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5		R6		Cond Avg					
48																																
49	Feedstream Number															F8	F8	F8	F8	F8	F8	F8										
50	Feed Class															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total				
51	Feed Class 2	Spike		Spike		Spike		Spike		Spike		Spike		Spike		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total					
52	Feedstream Description															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total				
53	Feedrate																															
54	Heating value																															
55	Thermal Feedrate															482.2	465.8	396.0	394.1	434.5												
56	Chlorine																															
57																																
58	Gas flowrate															89630	98575	89497	88539	91560.3												
59	Oxygen															7.3	6.5	6.8	6.4	6.8												
60																																

	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
01	Estimated Firing Rate	MMBtu/hr																								
02																										
03	<i>Feedrate MTEC Calculations</i>																									
04	Chlorine	ug/dscm	43592	55415	32753	54903											1182780	1052780	397634	1546322						
05																										
06																										
07																										
08	404C3		R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5													
09																										
10	Feedstream Number		F1	F1	F1	F1	F1	F1	F1	F2	F2	F2	F2													
11	Feed Class		Coal	Coal	Coal	Coal	Coal	Coal	Coal	Liq HW	Liq HW	Liq HW	Liq HW													
12	Feedstream Description		Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal													
13	Feedrate	lb/hr	13720	14560	13840	15340				9860	9880	9800	9780													
14	Heating value	Btu/lb	12240	11946	11016	11338				1780	16453	17420	17225													
15	Chlorine	lb/hr	13.7	14.6	13.8	15.3				108.5	316.2	56.8	107.6													
16																										
17	404C4		R1	R2	R3	R4	R5	R6	R1	R2	R3	R4	R5													
18																										
19	Feedstream Number		F1	F1	F1	F1	F1	F1	F1	F2	F2	F2	F2													
20	Feed Class		Coal	Coal	Coal	Coal	Coal	Coal	Coal	Liq HW	Liq HW	Liq HW	Liq HW													
21	Feed Class 2		Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal													
22	Feedstream Description		Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Coal	Liquid waste													
23	Feedrate	lb/hr	10140	10680	9220	11500				14000	14000	14020	14000													
24	Heating value	Btu/lb	11835	12271	11923	12420				16943	19004	17632	16783													
25	Chlorine	lb/hr	10.14	10.68	9.22	11.5				425	500	496	630													
26	Antimony	lb/hr	0.012168	0.013884	0.00922	0.0138				0.0126	0.1106	0.018226	0.0938													
27	Arsenic	lb/hr	0.6084	0.35244	0.2766	0.5405				0.0042	0.0112	0.005608	2.38													
28	Barium	lb/hr	0.28392	0.19224	0.20284	0.2185				0.224	1.54	0.61688	0.812													
29	Beryllium	lb/hr	0.003042	0.003204	0.002766	0.00345				0.0042	0.0042	0.004206	0.0042													
30	Cadmium	lb/hr	2.03814	0.066216	0.016596	0.023				0.021	0.0756	0.01402	0.0252													
31	Chromium	lb/hr	0.02028	0.02136	0.01844	0.023				0.028	0.35	0.093934	0.182													
32	Copper	lb/hr	0.11154	0.100392	0.11064	0.1058				0.1288	1.68	0.60286	0.798													
33	Lead	lb/hr	0.075036	0.063012	0.0461	0.07015				0.168	1.288	0.44864	7.84													
34	Mercury	lb/hr	0.0027378	0.00267	0.0022128	0.00368				0.0021	0.00224	0.0018226	0.00378													
35	Nickel	lb/hr	0.1521	0.11748	0.11064	0.1127				0.028	0.042	0.02804	0.042													
36	Silver	lb/hr	0.000507	0.000534	0.000461	0.000575				0.00308	0.00336	0.0033648	0.00406													
37	Thallium	lb/hr	0.006084	0.00534	0.002766	0.0069				0.0028	0.0028	0.002804	0.0028													
38	Zinc	lb/hr	314.34	0.27768	0.26738	0.2645				0.616	4.76	1.45808	2.94													
39																										
40	Gas flowrate		94990	95622	99391	98895				94990	95622	99391	98895													
41	Oxygen		3.8	5	5.4	9.2				3.8	5	5.4	9.2													
42																										
43	Thermal Feedrate	MMBtu/hr	120.0	131.1	109.9	142.8				237.2	266.1	247.2	235.0													
44	Estimated Firing Rate	MMBtu/hr																								
45																										
46	<i>Feedrate MTECs</i>																									
47	Chlorine	ug/dscm	23232	26130	22259	36888				973708	1223315	1197447	2020833													
48	Antimony	ug/dscm	28	34	22	44				29	271	44	301													
49	Arsenic	ug/dscm	1394	862	668	1734				10	27	14	7634													
50	Barium	ug/dscm	650	470	490	701				513	3768	1489	2605													
51	Beryllium	ug/dscm	7	8	7	11				10	10	10	13													
52	Cadmium	ug/dscm	4670	162	40	74				48	185	34	81													
53	Chromium	ug/dscm	46	52	45	74				64	856	227	584													
54	Copper	ug/dscm	256	246	267	339				295	4110	1455	2560													
55	Lead	ug/dscm	172	154	111	225				385	3151	1083	25148													
56	Mercury	ug/dscm	6	7	5	12				5	5	4	12													
57	Nickel	ug/dscm	348	287	267	362				64	103	68	135													
58	Silver	ug/dscm	1	1	1	2				7	8	8	13													
59	Thallium	ug/dscm	14	13	7	22				6	7	7	9													
60	Zinc	ug/dscm	720177	679	646	848				1411	11646	3520	9431													

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
61	Estimated Firing Rate																								
62																									
63	<i>Feedrate MTEC Calculatic</i>																								
64	Chlorine			347518		741136		306325		773161						1530298		1793916		703959		2319483			
65																									
66																									
67																									
68	404C3	R6		R1		R2		R3		R4		R5		R6											
69																									
70	Feedstream Number		F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3											
71	Feed Class		Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW											
72	Feedstream Description														HW	HW	HW	HW	HW	HW	HW	HW	HW	HW	HW
73	Feedrate		2460	3760	3640	3400																			
74	Heating value		6112	5148	6855	7934																			
75	Chlorine		3.198	4.136	3.64	3.74	1																		
76																									
77	404C4	R6		R1		R2		R3		R4		R5		R6	R1	R2	R3	R4	R5						
78																									
79	Feedstream Number		F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3											
80	Feed Class		Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW	Solid HW											
81	Feed Class 2														HW	HW	HW	HW	HW	HW	HW	HW	HW	HW	HW
82	Feedstream Description		Solid waste																						
83	Feedrate		5480	5560	5400	5020																			
84	Heating value		5552	5651	5847	5019																			
85	Chlorine		244	295	282	291	1																		
86	Antimony		1.5892	1.2232	3.564	2.7108																			
87	Arsenic		3.6168	3.892	8.64	9.1364																			
88	Barium		1.5892	1.5568	2.16	2.5602																			
89	Beryllium		0.009864	0.010008	0.01458	0.016064	1																		
90	Cadmium		0.09316	0.09452	0.2214	0.23092																			
91	Chromium		3.9456	4.0032	7.452	7.2288																			
92	Copper		1.6988	1.7236	2.97	3.2128																			
93	Lead		1.4248	1.2788	1.89	1.9076																			
94	Mercury		0.033976	0.040032	0.02808	0.024096	1																		
95	Nickel		0.25756	0.26132	0.3834	0.43172																			
96	Silver		0.012604	0.012232	0.00702	0.010542	1																		
97	Thallium	1	0.001096	1	0.001112	1	0.00108	1	0.001004	1															
98	Zinc		1.5344	1.5568	1.728	2.008																			
99																									
100	Gas flowrate		94990	95622	99391	98895																			
101	Oxygen		3.8	5	5.4	9.2																			
102																									
103	Thermal Feedrate		30.4	31.4	31.6	25.2	268	297	279	260															
104	Estimated Firing Rate																								
105																									
106	<i>Feedrate MTECs</i>																								
107	Chlorine		559023	721756	680806	933432	1532731	1945071	1878253	2954265	0														
108	Antimony		3641	2993	8604	8695	3670	3263	8648	8996	0														
109	Arsenic		8286	9522	20859	29307	8296	9550	20872	36941	0														
110	Barium		3641	3809	5215	8212	4154	7577	6704	10817															
111	Beryllium		23	24	35	52	32	35	45	65															
112	Cadmium		213	231	535	741	262	416	568	822															
113	Chromium		9040	9794	17991	23188	9104	10651	18217	23771															
114	Copper		3892	4217	7170	10306	4187	8327	8626	12865															
115	Lead		3264	3129	4563	6119	3649	6280	5646	31267															
116	Mercury		78	98	68	77	83	103	72	89															
117	Nickel		590	639	926	1385	654	742	993	1520															
118	Silver		29	30	17	34	36	38	25	47															
119	Thallium		3	3	3	3	9	10	9	12															
120	Zinc		3515	3809	4172	6441	4927	15455	7692	15872															

	B	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
61	Estimated Firing Rate																						
62																							
63	<i>Feedrate MTEC Calculatic</i>																						
64	Chlorine			546822		469351		525466		517757						233239		235857		255879		233098	
65																							
66																							
67																							
68	404C3			R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
69																							
70	Feedstream Number			F4		F4		F4		F4						F5		F5		F5		F5	
71	Feed Class			Raw material		Raw material		Raw material		Raw material						Spike		Spike		Spike		Spike	
72	Feedstream Description	HW																					
73	Feedrate															202		165		199		152	
74	Heating value																						
75	Chlorine			33.64	100	27.52	100	35.64	100	34.76													
76																							
77	404C4	R6		R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
78																							
79	Feedstream Number			F4		F4		F4		F4						F5		F5		F5		F5	
80	Feed Class			Raw Material		Raw Material		Raw Material		Raw Material						Spike		Spike		Spike		Spike	
81	Feed Class 2	HW		RM		RM		RM		RM													
82	Feedstream Description			Raw material												Organic liquid spike							
83	Feedrate			171800		171800		175600		115000						171.9		208.9		198.0		205.8	
84	Heating value																						
85	Chlorine			34.36	1	34.36	1	35.12	1	23													
86	Antimony			0.5154		0.41232		0.45656		0.253													
87	Arsenic			0.24052		0.32642		0.38632		0.2185													
88	Barium			4.8104		5.3258		4.7412		3.105													
89	Beryllium			0.05154	1	0.05154	1	0.05268	1	0.0345													
90	Cadmium			0.015462		0.01718		0.01756		0.0115													
91	Chromium			1.01362		1.16824		1.2292		0.667													
92	Copper			0.36078		0.41232		0.42144		0.253													
93	Lead			0.3436		0.41232		0.38632		0.253													
94	Mercury			0.003436	1	0.003436	1	0.003512	1	0.0023													
95	Nickel			0.72156		0.6872		0.68484		0.4025													
96	Silver			0.00859		0.00859	1	0.00878	1	0.00575													
97	Thallium			0.03436	1	0.03436	1	0.03512	1	0.023													
98	Zinc			2.2334		2.577		2.2828		1.495													
99																							
100	Gas flowrate			94990		95622		99391		98895						94990		95622		99391		98895	
101	Oxygen			3.8		5		5.4		9.2						3.8		5		5.4		9.2	
102																							
103	Thermal Feedrate																						
104	Estimated Firing Rate																						
105																							
106	<i>Feedrate MTECs</i>																						
107	Chlorine	0	100	78721	100	84066	100	84787	100	73776								0		0		0	
108	Antimony	0		1181		1009		1102		812								0		0		0	
109	Arsenic	0		551		799		933		701								0		0		0	
110	Barium			11021		13030		11446		9960								0		0		0	
111	Beryllium		100	118	100	126	100	127	100	111								0		0		0	
112	Cadmium			35		42		42		37								0		0		0	
113	Chromium			2322		2858		2968		2140								0		0		0	
114	Copper			827		1009		1017		812								0		0		0	
115	Lead			787		1009		933		812								0		0		0	
116	Mercury		100	8	100	8	100	8	100	7								0		0		0	
117	Nickel			1653		1681		1653		1291								0		0		0	
118	Silver		100	20	100	21	100	21	100	18								0		0		0	
119	Thallium		100	79	100	84	100	85	100	74								0		0		0	
120	Zinc			5117		6305		5511		4795								0		0		0	

	B	BV	BW	BX	BY	BZ	CA	CB	C	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CN	CN	CP	CP	CR	CR	CT	CT	CV
61	Estimated Firing Rate																										
62																											
63	<i>Feedrate MTEC Calculatic</i>																										
64	Chlorine					239373		194900		253726		230778															
65																											
66																											
67																											
68	404C3	R5	R6	R1		R2		R3		R4		R5		R6		R1	R2	R3	R4	R5	R6						
69																											
70	Feedstream Number			F6		F6		F6		F6		F6		F6		F7	F7	F7	F7								
71	Feed Class			Spike		Spike		Spike		Spike		Spike		Spike		Spike	Spike	Spike	Spike								
72	Feedstream Description																										
73	Feedrate					194		156		189		143															
74	Heating value					0		0		0		0															
75	Chlorine																										
76																											
77	404C4	R5	R6	R1		R2		R3		R4		R5		R6		R1	R2	R3	R4	R5	R6						
78																											
79	Feedstream Number			F6		F6		F6		F6		F6		F7		F7	F7	F7									
80	Feed Class			Spike		Spike		Spike		Spike		Spike		Spike		Spike	Spike	Spike	Spike								
81	Feed Class 2																										
82	Feedstream Description																										
83	Feedrate					164		198		186		196				Liquid metal spike											
84	Heating value					0		0		0		0															
85	Chlorine																										
86	Antimony																										
87	Arsenic																										
88	Barium																										
89	Beryllium																										
90	Cadmium																										
91	Chromium																										
92	Copper																										
93	Lead																										
94	Mercury																										
95	Nickel																										
96	Silver																										
97	Thallium																										
98	Zinc																										
99																											
100	Gas flowrate					94990		95622		99391		98895				94990	95622	99391	98895								
101	Oxygen					3.8		5		5.4		9.2				3.8	5	5.4	9.2								
102																											
103	Thermal Feedrate																										
104	Estimated Firing Rate																										
105																											
106	<i>Feedrate MTECs</i>																										
107	Chlorine					0		0		0						0	0	0	0								
108	Antimony					0		0		0						0	0	0	0								
109	Arsenic					0		0		0						51978	58202	51156	77012								
110	Barium					0		0		0						0	0	0	0								
111	Beryllium					0		0		0						2014	2226	2978	2932								
112	Cadmium					0		0		0						10093	9485	7923	7984								
113	Chromium					0		0		0						94368	78141	73383	91850								
114	Copper					0		0		0						0	0	0	0								
115	Lead					0		0		0						164514	171372	178141	122231								
116	Mercury					0		0		0						0	0	0	0								
117	Nickel					0		0		0						0	0	0	0								
118	Silver					0		0		0						0	0	0	0								
119	Thallium					0		0		0						0	0	0	0								
120	Zinc					0		0		0						0	0	0	0								

	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
21	SVM		ug/dscm		4841		316		151		299						433		3336		1117		25229			
22	LVM		ug/dscm		1447		922		719		1819						83		894		250		8232			
23																										
24	404C5				R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5	
25					Coal		Coal		Coal		Coal		Coal		Coal		Liq HW		Liq HW		Liq HW		Liq HW			
26	Feedstream Number				Coal		Coal		Coal		Coal		Coal		Coal											
27	Feed Class				Coal		Coal		Coal		Coal		Coal		Coal											
28	Feedstream Description																									
29	Feedrate		lb/hr															0		0						
30	Heating value		Btu/lb															0		0						
31	Chlorine		lb/hr															0		0						
32																										
33	404C6				R1		R2		R3		R4		R5		R6		R1		R2		R3		R4		R5	
34																										
35	Feedstream Number				F1		F1		F1		F1		F1													
36	Feed Class				Coal		Coal		Coal		Coal		Coal		Coal											
37	Feedstream Description				Coal		Coal		Coal		Coal		Coal		Coal		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW	
38	Feedrate		lb/hr		8904		19446		12462		17216		13610													
39	Heating value		Btu/lb																							
40	Chlorine		lb/hr																							
41																										

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
121	SVM			3478		3360		5097		6860						3911		6696		6214		32089			
122	LVM			17349		19341		38885		52546						17432		20235		39135		60777			
123																									
124	404C5	R6		R1		R2		R3		R4		R5		R6											
125				Solid HW		Solid HW		Solid HW		Solid HW		Solid HW		Solid HW											
126	Feedstream Number															HW		HW		HW		HW		HW	
127	Feed Class																								
128	Feedstream Description																								
129	Feedrate			0		0																			
130	Heating value			0		0																			
131	Chlorine			0		0																			
132																									
133	404C6	R6		R1		R2		R3		R4		R5		R6											
134																									
135	Feedstream Number			F2		F2		F2		F2															
136	Feed Class	Liq HW		Solid HW		Solid HW		Solid HW		Solid HW		Solid HW		Solid HW											
137	Feedstream Description															HW		HW		HW		HW		HW	
138	Feedrate			3718		3206		3718		2522															
139	Heating value			0		0		0		0															
140	Chlorine																								
141																									

	B	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU
121	SVM			823		1051		975		848								0		0		0	
122	LVM		3.9	2991	3.3	3783	3.2	4027	3.8	2951								0		0		0	
123																							
124	404C5			R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
125				Raw material		Raw material		Raw material		Raw material						Spike		Spike		Spike		Spike	
126	Feedstream Number	HW																					
127	Feed Class																						
128	Feedstream Description																						
129	Feedrate																						
130	Heating value																						
131	Chlorine																						
132																							
133	404C6			R1		R2		R3		R4		R5		R6		R1		R2		R3		R4	
134																							
135	Feedstream Number		F3		F3		F3		F3		F3					F4		F4		F4		F4	
136	Feed Class		Raw material		Raw material		Raw material		Raw material		Raw material					Spike		Spike		Spike		Spike	
137	Feedstream Description	HW																					
138	Feedrate		159220		162848		163300		162660		160060												
139	Heating value															400		400		400		400	
140	Chlorine															0		0		0		0	
141																400		400		400		400	

	B	BV	BW	BX	BY	BZ	CA	CB	C	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CN	CN	CP	CC	CR	CS	CT	CI	CV
121	SVM					0		0		0								174606	180857	186064		130214					
122	LVM					0		0		0								148360	138569	127517		171794					
123																											
124	404C5	R5		R6		R1		R2		R3		R4		R5		R6		R1	R2	R3		R4		R5		R6	
125					Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike	Spike	Spike		Spike		Spike		Spike
126	Feedstream Number																										
127	Feed Class																										
128	Feedstream Description																										
129	Feedrate																										
130	Heating value																										
131	Chlorine																										
132																											
133	404C6	R5		R6		R1		R2		R3		R4		R5		R6		R1	R2	R3		R4		R5		R6	
134																											
135	Feedstream Number	F4																									
136	Feed Class					Spike		Spike		Spike		Spike		Spike		Spike		Spike	Spike	Spike	Spike		Spike		Spike		Spike
137	Feedstream Description																										
138	Feedrate																										
139	Heating value					400																					
140	Chlorine					0																					
141						400																					

	B	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV
121	SVM		174606	180857	186064	130214									184181		188920		193405		163450						182489
122	LVM		148360	138569	127517	171794								0.07	170231	0	163509	0	171398	0	237341					0.1	185620
123																											
124	404C5														R1	R2	R3	R4	R5	R6							Cond Avg
125															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
126	Feedstream Number		Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
127	Feed Class																										
128	Feedstream Description																										
129	Feedrate																										
130	Heating value																										
131	Chlorine																										
132																											
133	404C6		R1	R2	R3	R4	R5	R6						R1	R2	R3	R4	R5	R6								Cond Avg
134																											
135	Feedstream Number																										
136	Feed Class														Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
137	Feedstream Description		Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
138	Feedrate																										
139	Heating value																										
140	Chlorine																										
141																											

	B	C	D	E	F	G	H	I
1	Process Information							
2				1	2	3	4	Cond Avg
3	404C10		max op cond					
4								
5	ESP Inlet Temp	F	max HRA	473	462	446	468	462.3
6	ESP Inlet Temp	F	RA	453	443	438	454	
7	ESP Power	kVA	min HRA	106.2	102.6	98.6	104.6	
8	ESP Power	kVA	RA	111	107.1	113	108.3	
9	Chain Temp	F	max HRA	1816	1790	1806	1768	
10	Chain Temp	F	RA	1790	1771	1781	1761	
11								
12				5	6	7		Cond Avg
13	404C11		Risk burn norm ops					
14								
15	ESP Inlet Temp	F	max HRA	458	445	455		452.7
16	ESP Inlet Temp	F	RA	452	442	447		
17	ESP Power	kVA	min HRA	98.8	94.4	102.7		
18	ESP Power	kVA	RA	105.5	98.7	104.1		
19	Chain Temp	F	max HRA	1738	1719	1757		
20	Chain Temp	F	RA	1731	1706	1748		

	C	D	E	F	G	H	I	J
1	Process Information 2							
2								
3	404C1							
4								
5	Combustion Temperature	F	1769	1767	1788	1755	1838	1757
6	ESP Temperature	F	487	474	474	514	524	519
7	ESP Power	kVA	104.5	107.3	107.5	104.1	92.1	94.3
8								
9	404C2							
10								
11	Combustion Temperature	F	1398	1362	1370	1332		
12	ESP Temperature	F	388	435	376	404		
13	ESP Power	kVA	107.5	105.5	115.3	112.4		
14								
15	404C3							
16								
17	Combustion Temperature	F	1473	1541	1499	1576		
18	ESP Temperature	F	397	430	407	425		
19	ESP Power	kVA	100.7	103.4	142.3	135.8		
20								
21	404C4							
22								
23	Combustion Temperature	F	1794	1759	1770	1745		
24	ESP Temperature	F	515	509	521	517		
25	ESP Power	kVA	94.1	95.1	100.3	94.8		
26								
27	404C6							
28								
29	ESP Temperature	F	458.2	452.8	448.04	454.6	473.15	
30								
31	404C7							
32								
33	Combustion Temperature	F	1570					
34	ESP Temperature	F	447					
35								
36	404C8							
37								
38	Combustion Temperature	F	1799	1724	1760	1745	1762	1755
39	ESP Temperature	F	549	553	565	560	466	479
40								
41	404C9							
42								
43	Combustion Temperature	F	1720	1719				
44	ESP Temperature	F	522	515				
45								
46	404B1							
47								
48	Combustion Temperature	F	1504	1523				
49	ESP Temperature	F	427	424				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	PCDD/PCDF																						
2	N																						
3	Facility Name and ID:		Ash Grove, Foreman, AR, Kiln No. 3																				
4	Condition ID:		404C10																				
5	Condition/Test Date:		CoC burn, 1/15-16/98																				
6																							
7		I-TEF	Run 1				Run 2				Run 3				Run 4								
8		Wght Fact	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	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	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	
10	Detected in sample volume (ng)																						
11		2,3,7,8-TCDD	1	0.05	0.0500	0.050	0.0500	0.05	0.0500	0.050	0.0500	0.06	0.0600	0.060	0.0600	0.07	0.0700	0.070	0.0700				
12		TCDD Total	0	7.5	0.0000	7.500	0.0000	5.5	0.0000	5.500	0.0000	5.4	0.0000	5.400	0.0000	11.6	0.0000	11.600	0.0000				
13		1,2,3,7,8-PCDD	0.5	0.03	0.0150	0.030	0.0150	0.04	0.0200	0.040	0.0200	0.05	0.0250	0.050	0.0250	0.12	0.0600	0.120	0.0600				
14		PCDD Total	0	3.8	0.0000	3.800	0.0000	3.8	0.0000	3.800	0.0000	5.3	0.0000	5.300	0.0000	13.5	0.0000	13.500	0.0000				
15		1,2,3,4,7,8-HxCDD	0.1	0.02	0.0020	0.020	0.0020	0.02	0.0020	0.020	0.0020	0.05	0.0050	0.050	0.0050	0.19	0.0190	0.190	0.0190				
16		1,2,3,6,7,8-HxCDD	0.1	0.04	0.0040	0.040	0.0040	0.05	0.0050	0.050	0.0050	0.12	0.0120	0.120	0.0120	0.53	0.0530	0.530	0.0530				
17		1,2,3,7,8,9-HxCDD	0.1	0.05	0.0050	0.050	0.0050	0.05	0.0050	0.050	0.0050	0.09	0.0090	0.090	0.0090	0.3	0.0300	0.300	0.0300				
18		HxCDD Total	0	2.35	0.0000	2.350	0.0000	20	0.0000	20.000	0.0000	28.7	0.0000	28.700	0.0000	74.1	0.0000	74.100	0.0000				
19		1,2,3,4,6,7,8-HpCDD	0.01	0.33	0.0033	0.330	0.0033	0.4	0.0040	0.400	0.0040	1	0.0100	1.000	0.0100	3.8	0.0380	3.800	0.0380				
20		HpCDD Total	0	0.74	0.0000	0.740	0.0000	0.93	0.0000	0.930	0.0000	2.4	0.0000	2.400	0.0000	8.7	0.0000	8.700	0.0000				
21		OCDD	0.001	0.09	0.0001	0.090	0.0001	0.11	0.0001	0.110	0.0001	0.29	0.0003	0.290	0.0003	0.74	0.0007	0.740	0.0007				
22		2,3,7,8-TCDF	0.1	0.04	0.0040	0.040	0.0040	0.04	0.0040	0.040	0.0040	0.04	0.0040	0.040	0.0040	0.11	0.0110	0.110	0.0110				
23		TCDF Total	0	1.5	0.0000	1.500	0.0000	1.1	0.0000	1.100	0.0000	2.1	0.0000	2.100	0.0000	6.6	0.0000	6.600	0.0000				
24		1,2,3,7,8-PCDF	0.05	0.01	0.0005	0.010	0.0005	0.01	0.0005	0.010	0.0005	0.03	0.0015	0.030	0.0015	0.09	0.0045	0.090	0.0045				
25		2,3,4,7,8-PCDF	0.5	0.05	0.0250	0.050	0.0250	0.03	0.0150	0.030	0.0150	0.06	0.0300	0.060	0.0300	0.33	0.1650	0.330	0.1650				
26		PCDF Total	0	0.28	0.0000	0.280	0.0000	0.24	0.0000	0.240	0.0000	0.19	0.0000	0.190	0.0000	1.5	0.0000	1.500	0.0000				
27		1,2,3,4,7,8-HxCDF	0.1	0.03	0.0030	0.030	0.0030	0.02	0.0020	0.020	0.0020	0.04	0.0040	0.040	0.0040	0.16	0.0160	0.160	0.0160				
28		1,2,3,6,7,8-HxCDF	0.1	0.01	0.0010	0.010	0.0010	0.01	0.0010	0.010	0.0010	0.01	0.0010	0.010	0.0010	0.09	0.0090	0.090	0.0090				
29		2,3,4,6,7,8-HxCDF	0.1	0.02	0.0020	0.020	0.0020	0.02	0.0020	0.020	0.0020	0.004	0.0004	0.004	0.0004	0.22	0.0220	0.220	0.0220				
30		1,2,3,7,8,9-HxCDF	0.1	0.006	0.0006	0.006	0.0006	0.006	0.0006	0.006	0.0006	0.004	0.0004	0.004	0.0004	0.04	0.0040	0.040	0.0040				
31		HxCDF Total	0	0.08	0.0000	0.080	0.0000	0.1	0.0000	0.100	0.0000	0.09	0.0000	0.090	0.0000	1.3	0.0000	1.300	0.0000				
32		1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.0001	0.010	0.0001	0.02	0.0002	0.020	0.0002	0.03	0.0003	0.030	0.0003	0.11	0.0011	0.110	0.0011				
33		1,2,3,4,7,8,9-HpCDF	0.01	0.009	0.0001	0.009	0.0001	0.007	0.0001	0.007	0.0001	0.006	0.0001	0.006	0.0001	0.04	0.0004	0.040	0.0004				
34		HpCDF Total	0	0.01	0.0000	0.010	0.0000	0.02	0.0000	0.020	0.0000	0.03	0.0000	0.030	0.0000	0.22	0.0000	0.220	0.0000				
35		OCDF	0.001	0.01	0.0000	0.010	0.0000	0.02	0.0000	0.020	0.0000	0.03	0.0000	0.030	0.0000	0.05	0.0001	0.050	0.0001				
36																							
37		Gas sample volume (dscf)		131.66	131.66	131.66		120.04	120.04	120.04		116.57	116.57	116.57		120.99	120.99	120.99					
38		O2 (%)		7.81	7.81	7.81		7.7	7.7	7.7		7.7	7.7	7.7		8.0	8.0	8.0					
39																							
40		PCDD/PCDF (ng in sample)		0.116	16.360	0.116		0.112	31.820	0.112		0.163	44.530	0.163		0.504	118.310	0.504					
41		PCDD/PCDF (ng/dscm @ 7% O2)		0.033	4.660	0.033		0.035	9.853	0.035		0.052	14.219	0.052		0.159	37.268	0.159					
42																							
43		TEQ Cond Avg		0.070																			
44		Total Cond Avg		16.500																			

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	404C1	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		0.0461	0.0461	0.0461		0.0370	0.0370	0.0370		0.0271	0.0271	0.0271
6	4D Other	0		25.5676	25.5676	0.0000		11.9828	11.9828	0.0000		9.0508	9.0508	0.0000
7	4D Total	0		25.6137	25.6137	0.0000		12.0198	12.0198	0.0000		9.0780	9.0780	0.0000
8	5D 12378	0.5		0.3253	0.3253	0.1626		0.2065	0.2065	0.1032		0.1357	0.1357	0.0679
9	5D Other	0		34.9105	34.9105	0.0000		17.1452	17.1452	0.0000		13.6471	13.6471	0.0000
10	5D Total	0		35.2357	35.2357	0.0000		17.3517	17.3517	0.0000		13.7828	13.7828	0.0000
11	6D 123478	0.1		0.4608	0.4608	0.0461		0.2712	0.2712	0.0271		0.1659	0.1659	0.0166
12	6D 123678	0.1		0.6505	0.6505	0.0651		0.3698	0.3698	0.0370		0.2443	0.2443	0.0244
13	6D 123789	0.1		0.7318	0.7318	0.0732		0.4315	0.4315	0.0431		0.2835	0.2835	0.0283
14	6D Other	0		60.7681	60.7681	0.0000		29.4393	29.4393	0.0000		20.6290	20.6290	0.0000
15	6D Total	0		62.6112	62.6112	0.0000		30.5119	30.5119	0.0000		21.3227	21.3227	0.0000
16	7D 1234678	0.01		3.1712	3.1712	0.0317		1.7876	1.7876	0.0179		1.0556	1.0556	0.0106
17	7D Other	0		4.3367	4.3367	0.0000		2.5581	2.5581	0.0000		1.5984	1.5984	0.0000
18	7D Total	0		7.5079	7.5079	0.0000		4.3456	4.3456	0.0000		2.6540	2.6540	0.0000
19	8D	0.001		1.7076	1.7076	0.0017		1.3869	1.3869	0.0014		1.1461	1.1461	0.0011
20	4F 2378	0.1		3.4152	3.4152	0.3415		1.7567	1.7567	0.1757		1.2365	1.2365	0.1237
21	4F Other	0		14.3924	14.3924	0.0000		6.8729	6.8729	0.0000		5.6700	5.6700	0.0000
22	4F Total	0		17.8076	17.8076	0.0000		8.6296	8.6296	0.0000		6.9065	6.9065	0.0000
23	5F 12378	0.05	1	0.5150	0.2575	0.0129	1	0.3082	0.1541	0.0077	1	0.2081	0.1040	0.0052
24	5F 23478	0.5		1.2468	1.2468	0.6234		0.7397	0.7397	0.3698		0.4825	0.4825	0.2413
25	5F Other	0		5.6648	5.6648	0.0000		2.6197	2.6197	0.0000		2.1745	2.1745	0.0000
26	5F Total	0		7.4266	7.4266	0.0000		3.6676	3.6676	0.0000		2.8651	2.8651	0.0000
27	6F 123478	0.1	1	0.5150	0.2575	0.0257	1	0.2805	0.1402	0.0140	1	0.1870	0.0935	0.0093
28	6F 123678	0.1		0.2467	0.2467	0.0247		0.1510	0.1510	0.0151		0.0935	0.0935	0.0093
29	6F 123789	0.1	1	0.0515	0.0257	0.0026	1	0.0370	0.0185	0.0018	1	0.0211	0.0106	0.0011
30	6F 234678	0.1	1	0.4879	0.2439	0.0244	1	0.2805	0.1402	0.0140	1	0.1629	0.0814	0.0081
31	6F Other	0		0.9487	0.9487	0.0000		0.4531	0.4531	0.0000		0.3498	0.3498	0.0000
32	6F Total	0		2.2497	2.2497	0.0000		1.2020	1.2020	0.0000		0.8143	0.8143	0.0000
33	7F 1234678	0.01		0.1789	0.1789	0.0018		0.1048	0.1048	0.0010		0.0664	0.0664	0.0007
34	7F 1234789	0.01		0.0705	0.0705	0.0007		0.0462	0.0462	0.0005		0.0241	0.0241	0.0002
35	7F Other	0		0.2385	0.2385	0.0000		0.1325	0.1325	0.0000		0.0784	0.0784	0.0000
36	7F Total	0		0.4879	0.4879	0.0000		0.2835	0.2835	0.0000		0.1689	0.1689	0.0000
37	8F	0.001	1	0.0515	0.0257	0.0000	1	0.0308	0.0154	0.0000	1	0.0181	0.0090	0.0000
38	Total PCDD/PCDF			160.6993	160.6735			79.4295	79.4141			58.7564	58.7474	
39	TEQ		8.5	1.5497		1.4841	8.3	0.9041		0.8665	7.9	0.5988		0.5750

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	404C3	I-TEF			R1				R2				R3				R4	
2		Wght Fact		Total	Total	TEQ		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		Full ND	1/2 ND	1/2 ND
4																		
5	4D 2378	1		0.0220	0.0220	0.0220		0.0250	0.0250	0.0250		0.0157	0.0157	0.0157		0.0182	0.0182	0.0182
6	4D Other	0		0.9003	0.9003	0.0000		16.8127	16.8127	0.0000		1.2246	1.2246	0.0000		3.3607	3.3607	0.0000
7	4D Total	0		0.9223	0.9223	0.0000		16.8377	16.8377	0.0000		1.2402	1.2402	0.0000		3.3789	3.3789	0.0000
8	5D 12378	0.5		0.0341	0.0341	0.0170		0.1111	0.1111	0.0555		0.0259	0.0259	0.0130		0.0699	0.0699	0.0349
9	5D Other	0		0.6206	0.6206	0.0000		18.8707	18.8707	0.0000		1.4885	1.4885	0.0000		3.6713	3.6713	0.0000
10	5D Total	0		0.6547	0.6547	0.0000		18.9818	18.9818	0.0000		1.5144	1.5144	0.0000		3.7412	3.7412	0.0000
11	6D 123478	0.1		0.0128	0.0128	0.0013		0.2037	0.2037	0.0204		0.0314	0.0314	0.0031		0.0997	0.0997	0.0100
12	6D 123678	0.1		0.0348	0.0348	0.0035		0.2811	0.2811	0.0281		0.0455	0.0455	0.0046		0.1305	0.1305	0.0131
13	6D 123789	0.1		0.0408	0.0408	0.0041		0.3741	0.3741	0.0374		0.0573	0.0573	0.0057		0.1828	0.1828	0.0183
14	6D Other	0		1.3140	1.3140	0.0000		58.7736	58.7736	0.0000		2.8708	2.8708	0.0000		7.7591	7.7591	0.0000
15	6D Total	0		1.4024	1.4024	0.0000		59.6325	59.6325	0.0000		3.0050	3.0050	0.0000		8.1722	8.1722	0.0000
16	7D 1234678	0.01		0.3616	0.3616	0.0036		1.5511	1.5511	0.0155		0.2431	0.2431	0.0024		0.6363	0.6363	0.0064
17	7D Other	0		0.3396	0.3396	0.0000		2.8207	2.8207	0.0000		0.3894	0.3894	0.0000		0.0040	0.0040	0.0000
18	7D Total	0		0.7012	0.7012	0.0000		4.3718	4.3718	0.0000		0.6325	0.6325	0.0000		0.6403	0.6403	0.0000
19	8D	0.001		0.9283	0.9283	0.0009		0.6473	0.6473	0.0006		0.1650	0.1650	0.0002		0.4282	0.4282	0.0004
20	4F 2378	0.1		0.1341	0.1341	0.0134		1.0442	1.0442	0.1044		0.1888	0.1888	0.0189		0.6615	0.6615	0.0661
21	4F Other	0		0.8634	0.8634	0.0000		6.3726	6.3726	0.0000		1.0243	1.0243	0.0000		3.5245	3.5245	0.0000
22	4F Total	0		0.9975	0.9975	0.0000		7.4168	7.4168	0.0000		1.2131	1.2131	0.0000		4.1860	4.1860	0.0000
23	5F 12378	0.05		0.0142	0.0142	0.0007		0.0868	0.0868	0.0043		0.0181	0.0181	0.0009		0.0800	0.0800	0.0040
24	5F 23478	0.5		0.0298	0.0298	0.0149		0.2366	0.2366	0.1183		0.0458	0.0458	0.0229		0.1890	0.1890	0.0945
25	5F Other	0		0.1842	0.1842	0.0000		1.9187	1.9187	0.0000		0.4075	0.4075	0.0000		1.4618	1.4618	0.0000
26	5F Total	0		0.2282	0.2282	0.0000		2.2422	2.2422	0.0000		0.4714	0.4714	0.0000		1.7309	1.7309	0.0000
27	6F 123478	0.1		0.0291	0.0291	0.0029		0.1465	0.1465	0.0147		0.0274	0.0274	0.0027		0.1247	0.1247	0.0125
28	6F 123678	0.1		0.0142	0.0142	0.0014		0.0637	0.0637	0.0064		0.0157	0.0157	0.0016		0.0637	0.0637	0.0064
29	6F 123789	0.1		0.0021	0.0021	0.0002		0.0181	0.0181	0.0018		0.0030	0.0030	0.0003		0.0105	0.0105	0.0010
30	6F 234678	0.1		0.0238	0.0238	0.0024		0.1331	0.1331	0.0133		0.0296	0.0296	0.0030		0.1050	0.1050	0.0105
31	6F Other	0		0.0916	0.0916	0.0000		0.5673	0.5673	0.0000		0.1056	0.1056	0.0000		0.4273	0.4273	0.0000
32	6F Total	0		0.1607	0.1607	0.0000		0.9288	0.9288	0.0000		0.1813	0.1813	0.0000		0.7311	0.7311	0.0000
33	7F 1234678	0.01		0.0561	0.0561	0.0006		0.0999	0.0999	0.0010		0.0241	0.0241	0.0002		0.0976	0.0976	0.0010
34	7F 1234789	0.01		0.0181	0.0181	0.0002		0.0213	0.0213	0.0002		0.0072	0.0072	0.0001		0.0185	0.0185	0.0002
35	7F Other	0		0.0529	0.0529	0.0000		0.0275	0.0275	0.0000		0.0066	0.0066	0.0000		0.0382	0.0382	0.0000
36	7F Total	0		0.1270	0.1270	0.0000		0.1487	0.1487	0.0000		0.0380	0.0380	0.0000		0.1542	0.1542	0.0000
37	8F	0.001		0.1143	0.1143	0.0001		0.0507	0.0507	0.0001		0.0181	0.0181	0.0000		0.0493	0.0493	0.0000
38	Total PCDD/PCDF			6.2366	6.2366			111.2581	111.2581			8.4790	8.4790			23.2122	23.2122	
39	TEQ		0.0	0.0892		0.0892	0.0	0.4470		0.4470	0.0	0.0953		0.0953	0.0	0.2974		0.2974

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	404C4	I-TEF			R1				R2				R3				R4	
2		Wght Fact		Total	Total	TEQ		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		Full ND	1/2 ND	1/2 ND
4																		
5	4D 2378	1		0.0235	0.023	0.0235		0.0376	0.038	0.0376		0.0932	0.093	0.0932		0.2479	0.248	0.2479
6	4D Other	0		20.3686	20.369	0.0000		45.1537	45.154	0.0000		80.3056	80.306	0.0000		71.8966	71.897	0.0000
7	4D Total	0		20.3920	20.392	0.0000		45.1913	45.191	0.0000		80.3988	80.399	0.0000		72.1445	72.144	0.0000
8	5D 12378	0.5		0.2414	0.241	0.1207		0.4243	0.424	0.2122		1.1772	1.177	0.5886		1.0795	1.080	0.5398
9	5D Other	0		32.0102	32.010	0.0000		64.8854	64.885	0.0000		114.3818	114.382	0.0000		100.8827	100.883	0.0000
10	5D Total	0		32.2516	32.252	0.0000		65.3098	65.310	0.0000		115.5589	115.559	0.0000		101.9622	101.962	0.0000
11	6D 123478	0.1		0.2271	0.227	0.0227		0.4038	0.404	0.0404		1.2814	1.281	0.1281		1.1899	1.190	0.1190
12	6D 123678	0.1		0.4886	0.489	0.0489		0.8571	0.857	0.0857		2.2077	2.208	0.2208		2.1567	2.157	0.2157
13	6D 123789	0.1		0.5713	0.571	0.0571		0.9314	0.931	0.0931		2.7645	2.765	0.2765		2.5574	2.557	0.2557
14	6D Other	0		37.4415	37.441	0.0000		69.8793	69.879	0.0000		134.4641	134.464	0.0000		149.0608	149.061	0.0000
15	6D Total	0		38.7285	38.728	0.0000		72.0716	72.072	0.0000		140.7178	140.718	0.0000		154.9648	154.965	0.0000
16	7D 1234678	0.01		1.5816	1.582	0.0158		2.7312	2.731	0.0273		7.6103	7.610	0.0761		6.5267	6.527	0.0653
17	7D Other	0		2.5773	2.577	0.0000		4.8533	4.853	0.0000		11.6963	11.696	0.0000		10.8474	10.847	0.0000
18	7D Total	0		4.1589	4.159	0.0000		7.5845	7.584	0.0000		19.3066	19.307	0.0000		17.3740	17.374	0.0000
19	8D	0.001		0.4516	0.452	0.0005		0.5823	0.582	0.0006		2.6917	2.692	0.0027		1.6441	1.644	0.0016
20	4F 2378	0.1		1.7631	1.763	0.1763		2.8414	2.841	0.2841		9.6044	9.604	0.9604		12.2722	12.272	1.2272
21	4F Other	0		9.0523	9.052	0.0000		15.3784	15.378	0.0000		49.9479	49.948	0.0000		56.1089	56.109	0.0000
22	4F Total	0		10.8154	10.815	0.0000		18.2198	18.220	0.0000		59.5523	59.552	0.0000		68.3811	68.381	0.0000
23	5F 12378	0.05		0.2607	0.261	0.0130		0.4466	0.447	0.0223		1.5427	1.543	0.0771		1.7522	1.752	0.0876
24	5F 23478	0.5		0.6456	0.646	0.3228		1.0989	1.099	0.5495		4.0047	4.005	2.0024		4.7745	4.774	2.3872
25	5F Other	0		3.9271	3.927	0.0000		9.0129	9.013	0.0000		24.6639	24.664	0.0000		34.4788	34.479	0.0000
26	5F Total	0		4.8334	4.833	0.0000		10.5584	10.558	0.0000		30.2113	30.211	0.0000		41.0055	41.005	0.0000
27	6F 123478	0.1		0.3165	0.317	0.0317		0.5574	0.557	0.0557		2.4501	2.450	0.2450		2.4699	2.470	0.2470
28	6F 123678	0.1		0.1559	0.156	0.0156		0.2760	0.276	0.0276		1.2252	1.225	0.1225		1.2277	1.228	0.1228
29	6F 123789	0.1		0.0305	0.031	0.0031		0.0616	0.062	0.0062		0.1898	0.190	0.0190		0.2235	0.223	0.0223
30	6F 234678	0.1		0.2573	0.257	0.0257		0.4270	0.427	0.0427		1.9973	1.997	0.1997		1.9879	1.988	0.1988
31	6F Other	0		1.1918	1.192	0.0000		2.0786	2.079	0.0000		9.4530	9.453	0.0000		8.9504	8.950	0.0000
32	6F Total	0		1.9521	1.952	0.0000		3.4006	3.401	0.0000		15.3154	15.315	0.0000		14.8594	14.859	0.0000
33	7F 1234678	0.01		0.2112	0.211	0.0021		0.3350	0.335	0.0033		1.5504	1.550	0.0155		1.2949	1.295	0.0129
34	7F 1234789	0.01		0.0639	0.064	0.0006		0.1085	0.108	0.0011		0.5788	0.579	0.0058		0.4511	0.451	0.0045
35	7F Other	0		0.1885	0.189	0.0000		0.1805	0.181	0.0000		1.6701	1.670	0.0000		1.2774	1.277	0.0000
36	7F Total	0		0.4636	0.464	0.0000		0.6239	0.624	0.0000		3.7993	3.799	0.0000		3.0234	3.023	0.0000
37	8F	0.001		0.0962	0.096	0.0001		0.1620	0.162	0.0002		0.5619	0.562	0.0006		0.4584	0.458	0.0005
38	Total PCDD/PCDF			114.1433	114.143			223.7041	223.704			468.1140	468.114			475.8175	475.818	
39	TEQ		0.0	0.8802		0.8802	0.0	1.4896		1.4896	0.0	5.0340		5.0340	0.0	5.7559		5.7559

	C	D	E	F	G	H	I	J	K	L
1	404C5	I-TEF			R1				R2	
2		Wght Fact		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
4										
5	4D 2378	1		0.0307	0.031	0.0307		0.0297	0.030	0.0297
6	4D Other	0		9.0661	9.066	0.0000		2.8317	2.832	0.0000
7	4D Total	0		9.0967	9.097	0.0000		2.8614	2.861	0.0000
8	5D 12378	0.5		0.1325	0.133	0.0663		0.0509	0.051	0.0255
9	5D Other	0		15.4277	15.428	0.0000		2.7210	2.721	0.0000
10	5D Total	0		15.5603	15.560	0.0000		2.7720	2.772	0.0000
11	6D 123478	0.1		0.1526	0.153	0.0153		0.0425	0.042	0.0042
12	6D 123678	0.1		0.2791	0.279	0.0279		0.0781	0.078	0.0078
13	6D 123789	0.1		0.3766	0.377	0.0377		0.0569	0.057	0.0057
14	6D Other	0		21.2492	21.249	0.0000		5.6116	5.612	0.0000
15	6D Total	0		22.0575	22.057	0.0000		5.7890	5.789	0.0000
16	7D 1234678	0.01		1.0305	1.030	0.0103		0.2372	0.237	0.0024
17	7D Other	0		1.8309	1.831	0.0000		0.4382	0.438	0.0000
18	7D Total	0		2.8614	2.861	0.0000		0.6754	0.675	0.0000
19	8D	0.001		0.3621	0.362	0.0004		0.1172	0.117	0.0001
20	4F 2378	0.1		1.6379	1.638	0.1638		0.5067	0.507	0.0507
21	4F Other	0		7.8807	7.881	0.0000		2.5082	2.508	0.0000
22	4F Total	0		9.5186	9.519	0.0000		3.0148	3.015	0.0000
23	5F 12378	0.05		0.2608	0.261	0.0130		0.0693	0.069	0.0035
24	5F 23478	0.5		0.6053	0.605	0.3027		0.1381	0.138	0.0691
25	5F Other	0		5.4026	5.403	0.0000		0.8146	0.815	0.0000
26	5F Total	0		6.2687	6.269	0.0000		1.0221	1.022	0.0000
27	6F 123478	0.1		0.3604	0.360	0.0360		0.1146	0.115	0.0115
28	6F 123678	0.1		0.2153	0.215	0.0215		0.0493	0.049	0.0049
29	6F 123789	0.1		0.0292	0.029	0.0029		0.0133	0.013	0.0013
30	6F 234678	0.1		0.3130	0.313	0.0313		0.0685	0.068	0.0068
31	6F Other	0		1.1850	1.185	0.0000		0.4215	0.421	0.0000
32	6F Total	0		2.1028	2.103	0.0000		0.6672	0.667	0.0000
33	7F 1234678	0.01		0.2934	0.293	0.0029		0.0586	0.059	0.0006
34	7F 1234789	0.01		0.1029	0.103	0.0010		0.0133	0.013	0.0001
35	7F Other	0		0.3398	0.340	0.0000		0.0402	0.040	0.0000
36	7F Total	0		0.7361	0.736	0.0000		0.1121	0.112	0.0000
37	8F	0.001		0.1365	0.137	0.0001		0.0147	0.015	0.0000
38	Total PCDD/PCDF			68.7008	68.701			17.0459	17.046	
39	TEQ		0.0	0.7638		0.7638	0.0	0.2239		0.2239

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	404C6	I-TEF			R1				R2				R3			R4				R5		
2		Wght Fact		Total	Total	TEQ		Total	Total	TEQ		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	Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND	
4																						
5	4D 2378	1		0.0271	0.027	0.0271		0.0225	0.023	0.0225		0.0191	0.019	0.0191	0.0209	0.021	0.0209		0.0206	0.021	0.0206	
6	4D Other	0		19.5133	19.513	0.0000		7.9694	7.969	0.0000		12.0271	12.027	0.0000	8.9916	8.992	0.0000		1.7446	1.745	0.0000	
7	4D Total	0		19.5405	19.540	0.0000		7.9919	7.992	0.0000		12.0462	12.046	0.0000	9.0125	9.013	0.0000		1.7652	1.765	0.0000	
8	5D 12378	0.5		0.1116	0.112	0.0558		0.0647	0.065	0.0324		0.0572	0.057	0.0286	0.0261	0.026	0.0131	2	0.0118	0.012	0.0059	
9	5D Other	0		20.0923	20.092	0.0000		8.4900	8.490	0.0000		11.0351	11.035	0.0000	3.1870	3.187	0.0000		0.4884	0.488	0.0000	
10	5D Total	0		20.2039	20.204	0.0000		8.5547	8.555	0.0000		11.0923	11.092	0.0000	3.2132	3.213	0.0000		0.5001	0.500	0.0000	
11	6D 123478	0.1		0.1930	0.193	0.0193		0.0985	0.098	0.0098		0.0954	0.095	0.0095	0.0340	0.034	0.0034		0.0118	0.012	0.0012	
12	6D 123678	0.1		0.3619	0.362	0.0362		0.1745	0.174	0.0174		0.1635	0.164	0.0164	0.0444	0.044	0.0044		0.0118	0.012	0.0012	
13	6D 123789	0.1		0.3619	0.362	0.0362		0.1801	0.180	0.0180		0.1908	0.191	0.0191	0.0836	0.084	0.0084		0.0294	0.029	0.0029	
14	6D Other	0		55.4732	55.473	0.0000		24.9296	24.930	0.0000		42.3387	42.339	0.0000	13.1348	13.135	0.0000		0.6825	0.683	0.0000	
15	6D Total	0		56.3899	56.390	0.0000		25.3827	25.383	0.0000		42.7884	42.788	0.0000	13.2968	13.297	0.0000		0.7355	0.735	0.0000	
16	7D 1234678	0.01		2.1109	2.111	0.0211		0.9286	0.929	0.0093		1.1719	1.172	0.0117	0.2194	0.219	0.0022		0.0500	0.050	0.0005	
17	7D Other	0		3.1361	3.136	0.0000		1.1538	1.154	0.0000		1.4717	1.472	0.0000	0.2769	0.277	0.0000		0.0794	0.079	0.0000	
18	7D Total	0		5.2470	5.247	0.0000		2.0824	2.082	0.0000		2.6436	2.644	0.0000	0.4963	0.496	0.0000		0.1294	0.129	0.0000	
19	8D	0.001		0.0010	0.001	0.0000		0.2026	0.203	0.0002		0.2507	0.251	0.0003	0.1515	0.152	0.0002		0.0500	0.050	0.0001	
20	4F 2378	0.1		1.7490	1.749	0.1749		0.6754	0.675	0.0675		0.8176	0.818	0.0818	0.3918	0.392	0.0392		0.1118	0.112	0.0112	
21	4F Other	0		8.0514	8.051	0.0000		3.2080	3.208	0.0000		3.6793	3.679	0.0000	1.5152	1.515	0.0000		0.5060	0.506	0.0000	
22	4F Total	0		9.8004	9.800	0.0000		3.8834	3.883	0.0000		4.4969	4.497	0.0000	1.9070	1.907	0.0000		0.6178	0.618	0.0000	
23	5F 12378	0.05	2	0.2503	0.250	0.0125	2	0.0760	0.076	0.0038	2	0.0927	0.093	0.0046	2	0.0235	0.024	0.0012	2	0.0118	0.012	0.0006
24	5F 23478	0.5		0.7237	0.724	0.3619	2	0.2026	0.203	0.1013	2	0.2453	0.245	0.1226	2	0.0967	0.097	0.0483	2	0.0206	0.021	0.0103
25	5F Other	0		4.2730	4.273	0.0000		0.7907	0.791	0.0000		0.9702	0.970	0.0000	0.5590	0.559	0.0000		0.1412	0.141	0.0000	
26	5F Total	0		5.2470	5.247	0.0000		1.0693	1.069	0.0000		1.3082	1.308	0.0000	0.6792	0.679	0.0000		0.1736	0.174	0.0000	
27	6F 123478	0.1	2	0.3317	0.332	0.0332	2	0.1013	0.101	0.0101	2	0.1526	0.153	0.0153	2	0.0627	0.063	0.0063	2	0.0147	0.015	0.0015
28	6F 123678	0.1		0.1508	0.151	0.0151		0.0366	0.037	0.0037		0.0463	0.046	0.0046	0.0183	0.018	0.0018	2	0.0059	0.006	0.0006	
29	6F 123789	0.1	2	0.0513	0.051	0.0051	1	0.0281	0.014	0.0014	2	0.0191	0.019	0.0019	2	0.0078	0.008	0.0008	1	0.0018	0.001	0.0001
30	6F 234678	0.1	2	0.3317	0.332	0.0332	2	0.0675	0.068	0.0068	2	0.1063	0.106	0.0106	2	0.0522	0.052	0.0052	2	0.0206	0.021	0.0021
31	6F Other	0		0.9137	0.914	0.0000		0.1604	0.160	0.0000		0.2208	0.221	0.0000	0.0340	0.034	0.0000		0.0041	0.004	0.0000	
32	6F Total	0		1.7791	1.779	0.0000		0.3940	0.394	0.0000		0.5451	0.545	0.0000	0.1750	0.175	0.0000		0.0471	0.047	0.0000	
33	7F 1234678	0.01		0.1116	0.112	0.0011		0.0422	0.042	0.0004		0.0409	0.041	0.0004	0.0287	0.029	0.0003		0.0177	0.018	0.0002	
34	7F 1234789	0.01		0.0573	0.057	0.0006	2	0.0084	0.008	0.0001	2	0.0164	0.016	0.0002	2	0.0078	0.008	0.0001	1	0.0006	0.000	0.0000
35	7F Other	0		0.0151	0.015	0.0000		0.0056	0.006	0.0000		-0.0055	-0.005	0.0000	0.0000	0.000	0.0000		0.0053	0.005	0.0000	
36	7F Total	0		0.1839	0.184	0.0000		0.0563	0.056	0.0000		0.0518	0.052	0.0000	0.0366	0.037	0.0000		0.0235	0.024	0.0000	
37	8F	0.001	2	0.0392	0.039	0.0000	2	0.0141	0.014	0.0000	2	0.0273	0.027	0.0000	2	0.0131	0.013	0.0000	2	0.0088	0.009	0.0000
38	Total PCDD/PCDF			118.4309	118.432			49.6313	49.631			75.2504	75.250		28.9812	28.981			4.0510	4.051		
39	TEQ	0.0		0.8333		0.8333	0.9	0.3062		0.3048	0.0	0.3467		0.3467	0.0	0.1557		0.1557	0.3	0.0589		0.0588

	C	D	E	F	G	H	I	J	K	L
1	404C9	I-TEF			R1				R2	
2		Wght Fact		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
4										
5	4D 2378	1	1	0.061	0.031	0.0305		0.041	0.041	0.0410
6	4D Other	0		14.509	14.509	0.0000		10.565	10.565	0.0000
7	4D Total	0		14.57	14.570	0.0000		10.606	10.606	0.0000
8	5D 12378	0.5		0.124	0.124	0.0620		0.15	0.150	0.0750
9	5D Other	0		18.333	18.333	0.0000		13.469	13.469	0.0000
10	5D Total	0		18.457	18.457	0.0000		13.619	13.619	0.0000
11	6D 123478	0.1		0.136	0.136	0.0136		0.141	0.141	0.0141
12	6D 123678	0.1		0.189	0.189	0.0189		0.264	0.264	0.0264
13	6D 123789	0.1		0.265	0.265	0.0265		0.148	0.148	0.0148
14	6D Other	0		38.074	38.074	0.0000		21.999	21.999	0.0000
15	6D Total	0		38.664	38.664	0.0000		22.552	22.552	0.0000
16	7D 1234678	0.01		0.936	0.936	0.0094		0.758	0.758	0.0076
17	7D Other	0		1.404	1.404	0.0000		1.532	1.532	0.0000
18	7D Total	0		2.34	2.340	0.0000		2.29	2.290	0.0000
19	8D	0.001	2	0.203	0.203	0.0002		0.211	0.211	0.0002
20	4F 2378	0.1		0.203	0.203	0.0203		0.388	0.388	0.0388
21	4F Other	0		9.707	9.707	0.0000		14.024	14.024	0.0000
22	4F Total	0		9.91	9.910	0.0000		14.412	14.412	0.0000
23	5F 12378	0.05	2	0.165	0.165	0.0083		0.335	0.335	0.0168
24	5F 23478	0.5		0.427	0.427	0.2135		0.687	0.687	0.3435
25	5F Other	0		2.013	2.013	0.0000		4.651	4.651	0.0000
26	5F Total	0		2.605	2.605	0.0000		5.673	5.673	0.0000
27	6F 123478	0.1		0.173	0.173	0.0173		0.493	0.493	0.0493
28	6F 123678	0.1	2	0.073	0.073	0.0073		0.211	0.211	0.0211
29	6F 123789	0.1	1	0.061	0.031	0.0031		0.028	0.028	0.0028
30	6F 234678	0.1		0.134	0.134	0.0134		0.194	0.194	0.0194
31	6F Other	0		0.353	0.353	0.0000		1.435	1.435	0.0000
32	6F Total	0		0.794	0.794	0.0000		2.361	2.361	0.0000
33	7F 1234678	0.01		0.088	0.088	0.0009		0.211	0.211	0.0021
34	7F 1234789	0.01	1	0.102	0.051	0.0005		0.085	0.085	0.0009
35	7F Other	0		-0.102	-0.102	0.0000		0.074	0.074	0.0000
36	7F Total	0		0.088	0.088	0.0000		0.37	0.370	0.0000
37	8F	0.001	1	0.142	0.071	0.0001	2	0.048	0.048	0.0000
38	Total PCDD/PCDF			87.773	87.702			72.142	72.142	
39	TEQ		14.2	0.4798		0.4456	0.0	0.6737		0.6737

	C	D	E	F	G	H	I	J	K	L
1	404B1	I-TEF			R1				R2	
2		Wght Fact		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
4										
5	4D 2378	1		0.025	0.025	0.0250		0.035	0.035	0.0350
6	4D Other	0		1.184	1.184	0.0000		1.029	1.029	0.0000
7	4D Total	0		1.209	1.209	0.0000		1.064	1.064	0.0000
8	5D 12378	0.5		0.028	0.028	0.0140	1	0.041	0.021	0.0103
9	5D Other	0		0.822	0.822	0.0000		1.33	1.330	0.0000
10	5D Total	0		0.85	0.850	0.0000		1.371	1.371	0.0000
11	6D 123478	0.1		0.017	0.017	0.0017	1	0.061	0.031	0.0031
12	6D 123678	0.1		0.032	0.032	0.0032	2	0.035	0.035	0.0035
13	6D 123789	0.1		0.019	0.019	0.0019	1	0.061	0.031	0.0031
14	6D Other	0		2.237	2.237	0.0000		2.278	2.278	0.0000
15	6D Total	0		2.305	2.305	0.0000		2.435	2.435	0.0000
16	7D 1234678	0.01		0.185	0.185	0.0019	2	0.131	0.131	0.0013
17	7D Other	0		0.382	0.382	0.0000		0.36	0.360	0.0000
18	7D Total	0		0.567	0.567	0.0000	2	0.491	0.491	0.0000
19	8D	0.001		0.085	0.085	0.0001		0.127	0.127	0.0001
20	4F 2378	0.1		0.102	0.102	0.0102		0.065	0.065	0.0065
21	4F Other	0		3.205	3.205	0.0000		1.817	1.817	0.0000
22	4F Total	0		3.307	3.307	0.0000		1.882	1.882	0.0000
23	5F 12378	0.05		0.038	0.038	0.0019		0.045	0.045	0.0023
24	5F 23478	0.5		0.119	0.119	0.0595	2	0.049	0.049	0.0245
25	5F Other	0		0.75	0.750	0.0000		0.315	0.315	0.0000
26	5F Total	0		0.907	0.907	0.0000		0.409	0.409	0.0000
27	6F 123478	0.1		0.049	0.049	0.0049		0.055	0.055	0.0055
28	6F 123678	0.1		0.026	0.026	0.0026		0.031	0.031	0.0031
29	6F 123789	0.1		0.008	0.008	0.0008	1	0.041	0.021	0.0021
30	6F 234678	0.1		0.032	0.032	0.0032		0.047	0.047	0.0047
31	6F Other	0		0.187	0.187	0.0000		-0.014	-0.014	0.0000
32	6F Total	0		0.302	0.302	0.0000		0.16	0.160	0.0000
33	7F 1234678	0.01		0.026	0.026	0.0003		0.035	0.035	0.0004
34	7F 1234789	0.01		0.011	0.011	0.0001	1	0.061	0.031	0.0003
35	7F Other	0		0.027	0.027	0.0000		-0.061	-0.061	0.0000
36	7F Total	0		0.064	0.064	0.0000		0.035	0.035	0.0000
37	8F	0.001	2	0.009	0.009	0.0000	1	0.082	0.041	0.0000
38	Total PCDD/PCDF			9.605	9.605			8.056	8.015	
39	TEQ		0.0	0.1312		0.1312	30.2	0.1243		0.1056