

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase II ID No.	327
4	EPA ID No.	UTD982595795
5	Facility Name	Safety Kleen
6	Facility Location	
7	City	Aragonite
8	State	UT
9	Unit ID Name/No.	Rotary kiln
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Commercial incinerator
13	Combustor Type	Rotary kiln
	Combustor Characteristics	Rotary kiln, afterburner. Six different waste feed streams can be fed in, most of the waste streams are fed to the kiln; only aqueous and liquid blend are fed to the afterburner. Kiln has 14' diameter, 40' long
14		
15	Capacity (MMBtu/hr)	140 MM Btu/hr
16	Soot Blowing	
17	APCS Detailed Acronym	CI/SD/FF/WS/WS/WESP
18	APCS General Class	FF, CI, WESP, LEWS
	APCS Characteristics	Spray dryer, carbon injection, fabric filter, 2 stage wet scrubber, wet ESP. Procedaire spray dryer / FF, pulse jet, A/C = 3, 42,000 ft2 fabric area, Teflon coated fiberglass bags, Intolox saddle packing; Anderson 2000 packed tower, Tellerette packing; Beltran wet ESP, 9600 ft2 plate area. Carbon injection added around 1994, however, not currently in use.
19		
20		
21	Hazardous Wastes	Liq, solid
22	Haz Waste Description	
23	Supplemental Fuel	Oil
24		Fuel oil
25		
26	Stack Characteristics	
27	Diameter (ft)	5
28	Height (ft)	150
29	Gas Velocity (ft/sec)	58.7
30	Gas Temperature (°F)	158
31		
32	Permitting Status	
33	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	327C10	
4		
5	Report Name/Date	Trial Burn Test Report, June 2001
6	Report Prepare	METCO Environmental
7	Testing Firm	Safety Kleen
8	Testing Dates	June 13-16, 2001
9	Cond Dates	Jun-01
10	Condition Descr	Trial burn, to set oper limits on all constituents
11	Content	PM, HCl/Cl2, metals, DRE, POHC, PCDD/F
12		
13	327C1	
14		
15	Report Name/Date	Trial Burn Report for the Aptus Rotary Kiln Incinerator in Aragonite, Utah, Alliance Project No. 5-008-999, August 1992
16	Report Prepare	Alliance Technologies
17	Testing Firm	Alliance Technologies
18	Cond Descr	Trial burn, MAX LIQUID AND DIRECT BURN FEED RATES
19	Testing Dates	May 5-10, 1992
20	Cond Dates	May-92
21		
22	327C2	
23		
24	Report Name/Date	Trial Burn Report for the Aptus Rotary Kiln Incinerator in Aragonite, Utah, Alliance Project No. 5-008-999, August 1992
25	Report Prepare	Alliance Technologies
26	Testing Firm	Alliance Technologies
27	Cond Descr	Trial burn, MAX SLUDGE FEED RATE
28	Testing Dates	March 19-21, 1992
29	Cond Dates	Mar-92
30		
31	327C3	
32		
33	Report Name/Date	Trial Burn Report for the Aptus Rotary Kiln Incinerator in Aragonite, Utah, Alliance Project No. 5-008-999, August 1992
34	Report Prepare	Alliance Technologies
35	Testing Firm	Alliance Technologies
36	Cond Descr	Trial burn, MAX KILN HEAT INPUT
37	Testing Dates	March 25-27, 1992
38	Cond Dates	Mar-92
39		
40	327C4	
41		
42	Report Name/Date	Evaluation of Polychlorinated Dibenzo-p-dioxins and Polychlorinated dibenzo-furan Formation in the Hazardous Waste Incinerator Operated by Aptus, Inc. at Aragonite, Utah, NAWC Report EM 94-31, October 1994
43	Report Prepare	North American Weather Consultants
44	Testing Firm	TRC Environmental
45	Cond Descr	Evaluation testing, HIGH, LOW APCD TEMP/NO SULFUR ADDITIVE
46	Testing Dates	August 2, 1994
47	Cond Dates	Aug-94
48		
49	327C5	
50		
51	Report Name/Date	Evaluation of Polychlorinated Dibenzo-p-dioxins and Polychlorinated dibenzo-furan Formation in the Hazardous Waste Incinerator Operated by Aptus, Inc. at Aragonite, Utah, NAWC Report EM 94-31, October 1994
52	Report Prepare	North American Weather Consultants
53	Testing Firm	TRC Environmental
54	Cond Descr	Research test, HIGH, LOW APCD TEMP/SULFUR ADDITIVE
55	Testing Dates	August 3, 1994
56	Cond Dates	Aug-94

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 1											
2												
3												
4	327C10	Trial Burn				R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0046		0.0008		0.0012		0.0022
7	PM (duplicate)		gr/dscf	y		0.0006		0.0008		0.0002		0.000533
8	CO (RA)	E1	ppmv	y		0.57		1.13		2.71		1.47
9	HC	E1	ppmv	y	nd	4.2 nd		3.9 nd		4.9		4.33
10	SO2	E5	ppmv	y		0		4.1		60		21.37
11												
12	NOx		lb/hr			18.58		18.49		17.68		
13	NOx	E1	ppmv	y		89.9		86.8		85.2		
14												
15	HCl	E1	ppmv	y		0.4		0.3		0.3		0.33
16	Cl2	E1	ppmv	y		0.1		0.2		0.3		0.20
17	Total Chlorine	E1	ppmv	y		0.6		0.7		0.9		0.73
18												
19	Silver	E2	ug/dscm	y	nd	1.75 nd		1.69 nd		1.83 100		1.76
20	Aluminum	E2	ug/dscm	y	nd	87.43 nd		78.32 nd		82.33 100		82.69
21	Arsenic	E2	ug/dscm	y	nd	53.37 nd		51.29 nd		55.56 100		53.40
22	Barium	E2	ug/dscm	y	nd	3.73 nd		3.28 nd		3.54 100		3.51
23	Beryllium	E2	ug/dscm	y	nd	0.90 nd		0.87 nd		0.94 100		0.91
24	Calcium	E2	ug/dscm	y	nd	220.26 nd		120.71 nd		103.68 100		148.22
25	Cadmium	E2	ug/dscm	y	nd	0.90 nd		0.87 nd		0.94 100		0.91
26	Cobalt	E2	ug/dscm	y	nd	8.87 nd		8.58 nd		9.26 100		8.90
27	Chromium	E2	ug/dscm	y	nd	1.53 nd		1.26 nd		1.47 100		1.42
28	Copper	E2	ug/dscm	y	nd	3.73 nd		3.11 nd		3.24 100		3.36
29	Iron	E2	ug/dscm	y		25.87		22.01		59.09		35.66
30	Potassium	E2	ug/dscm	y	nd	524.10 nd		515.06 nd		527.24 100		522.13
31	Lithium	E2	ug/dscm	y	nd	8.87 nd		8.58 nd		9.26 100		8.90
32	Magnesium	E2	ug/dscm	y	nd	434.31 nd		417.84 nd		447.74 100		433.29
33	Manganese	E2	ug/dscm	y		5.42 nd		1.91 nd		1.95		3.09
34	Molybdenum	E2	ug/dscm	y	nd	4.18 nd		3.82 nd		4.66 100		4.22
35	Sodium	E2	ug/dscm	y	nd	779.66 nd		733.81 nd		728.94 100		747.47
36	Nickel	E2	ug/dscm	y	nd	7.12 nd		6.83 nd		7.43 100		7.12
37	Lead	E2	ug/dscm	y	nd	8.87 nd		8.58 nd		9.26 100		8.90
38	Antimony	E2	ug/dscm	y	nd	10.67 nd		10.27 nd		11.09 100		10.68
39	Selenium	E2	ug/dscm	y	nd	44.45 nd		42.68 nd		46.30 100		44.47
40	Strontium	E2	ug/dscm	y	nd	0.73 nd		0.66 nd		0.53 100		0.64
41	Thallium	E2	ug/dscm	y	nd	355.80 nd		341.92 nd		370.37 100		356.03
42	Vanadium	E2	ug/dscm	y	nd	3.56 nd		3.44 nd		3.72 100		3.57
43	Zinc	E2	ug/dscm	y		22.308		10.487		11.618		14.80
44	Mercury	E2	ug/dscm	y		132.607		90.013		349.311		190.64
45												
46	SVM	E2	ug/dscm	y	100	9.77 100		9.45 100		10.20 100		9.81
47	LVM	E2	ug/dscm	y	100	55.80 100		53.42 100		57.97 100		55.73
48												
49	Chromium (Hex)		lb/hr			4.94E-05		1.06E-04		1.05E-04		
50												
51												
52	POHC DRE	Chlorobenzene										
53	POHC Feedrate		lb/hr			1907.29		1272.86		1268.62		
54	Emission Rate	E4	lb/hr		nd	7.57E-04 nd		9.76E-04 nd		1.40E-03		
55	DRE	E4	%			99.99996		99.999923		99.99989		
56												
57												
58	POHC DRE	Hexachloroethane										
59	POHC Feedrate		lb/hr			423.5		613.66		598.63		
60	Emission Rate	E4	lb/hr		nd	2.30E-05 nd		2.09E-05 nd		2.44E-05		
61	DRE	E4	%			99.999995		99.999995		99.999996		
62												
63	POHC DRE	PCB										
64	POHC Feedrate		lb/hr			1265.9		1332.08		1269.35		
65	Emission Rate	E4	lb/hr		nd	8.45E-06 nd		7.91E-06 nd		6.34E-06		
66	DRE	E4	%			99.999999		99.999999		99.999999		
67												
68												
69	Sampling Train	PM(A), HCl/Cl2		E1								
70	Stack Gas Flowrate		dscfm			34344		33436		33647		33809
71	O2		%			9.2		8.5		8.9		8.9

	B	C	D	E	F	G	H	I	J	K	L	M
72	Moisture		%			31.93		34.96		34.38		33.8
73	Temperature		°F			155		161		159		158.3
74												
75	Sampling Train	Metals		E2								
76	Stack Gas Flowrate		dscfm			34156		33030		32554		33247
77	O2		%			9.2		8.5		8.9		8.9
78	Moisture		%			31.58		35.05		34.37		33.7
79	Temperature		°F			155		160		160		158.3
80												
81	Sampling Train	Cr+6		E3								
82	Stack Gas Flowrate		dscfm			34441		33035		33463		33646
83	O2		%			9.2		8.5		8.9		8.87
84	Moisture		%			31.96		34.35		34.56		33.62
85	Temperature		°F			153		158		156		155.67
86												
87	Sampling Train	DRE		E4								
88	Stack Gas Flowrate		dscfm			33063		33865		33746		33558
89	O2		%			8.4		8.6		8.8		8.6
90	Moisture		%			33.78		33.46		34.09		33.8
91	Temperature		°F			156		159		158		157.7
92												
93	Sampling Train	SO2		E5								
94	Stack Gas Flowrate		dscfm			34241		33179		33841		33753.67
95	O2		%			8.2		8.4		8.6		8.4
96	Moisture		%			32.21		34.37		33.86		33.48
97	Temperature		°F									
98												
99	Sampling Train	PCDD/F		E6								
100	Stack Gas Flowrate		dscfm			67665		69001		70347		69004
101	O2		%			8.2		8.4		8.6		8.4
102	Moisture		%			33.63		33.89		34.19		33.9
103	Temperature		°F			156		157		159		157.3
104												
105	Chromium (Hex)	E3	ug/dscm	y		0.46		0.96		0.97		

	B	C	D	E	F	G	H	I	J	K	L	M	
1	Stack Gas Emissions												
2													
3	327C1					R1	R2	R3	Cond Avg				
4													
5	PM	E1	gr/dscf	y		0.0009		0.0001		0.0024		0.0011	
6	CO (RA)	E1	ppmv	y		6.5		7.1		11.9		8.5	
7	HC (RA)	E1	ppmv	y		5.1		3.0				4.1	
8	HCl	E1	ppmv	y		11.1		8.5		7.2		8.9	
9	Cl2	E1	ppmv	y		0.3		0.2		0.2		0.2	
10	Total Chlorine	E1	ug/dscm	y		11.7		8.9		7.5		9.4	
11	Antimony	E2	ug/dscm	y	nd	6.8	nd	6.8	nd	7.1		6.9	
12	Arsenic	E2	ug/dscm	y	nd	5.7	nd	5.7		3.5		5.0	
13	Barium	E2	ug/dscm	y		17.4		15.1		0.8		11.1	
14	Beryllium	E2	ug/dscm	y		0.7		0.9		0.4		0.7	
15	Cadmium	E2	ug/dscm	y		0.6		0.7		0.9		0.7	
16	Chromium	E2	ug/dscm	y		28.9		29.8		22.0		26.9	
17	Chromium (Hex)	E3	ug/dscm	y		0.5		0.1		0.2		0.3	
18	Lead	E2	ug/dscm	y		19.9		16.4		37.6		24.6	
19	Mercury	E2	ug/dscm	y		1461.0		599.6		2127.1		1395.9	
20	Silver	E2	ug/dscm	y	nd	2.3		3.5	nd	2.4		2.7	
21	Thallium	E2	ug/dscm	y	nd	11.3	nd	11.3	nd	11.8		11.5	
22	SVM	E2	ug/dscm	y		20.5		17.1		38.5		25.4	
23	LVM	E2	ug/dscm	y		35.3		36.4		25.9		32.5	
24													
25	Hexachloroethane	E4	%			99.99999		99.99989		99.99999			
26	Monochlorobenzene	E4	%			99.99986		99.99944		99.99995			
27	PCBs	E4	%			99.99999		100		100			
28													
29	Sampling Train	Haloge E1											
30	Stack Gas Flowrate		dscfm			34258.0		32783.0		31149.0			
31	O2		%			9.9		9.4		9.6			
32	Moisture		%			22.4		25.4		24.1			
33	Temperature		°F			143.1		145.5		147.8			
34													
35	Sampling Train	Metals E2											
36	Stack Gas Flowrate		dscfm			32573.0		31113.0		33064.0			
37	O2		%			9.9		10.0		10.6			
38	Moisture		%			23.7		27.2		23.1			
39	Temperature		°F			145.9		146.0		143.5			
40													
41	Sampling Train	Cr Hex E3											
42	Stack Gas Flowrate		dscfm			34246.0		33387.0		33379.0			
43	O2		%			9.9		10.0		10.6			
44	Moisture		%			20.0		24.7		20.1			
45	Temperature		°F			144.9		143.7		145.8			
46													
47	Sampling Train	SVOC E4											
48	Stack Gas Flowrate		dscfm			34627.0		32623.0		31721.0			
49	O2		%			10.7		9.7		9.7			
50	Moisture		%			22.4		24.3		23.6			
51	Temperature		°F			141.4		144.4		147.9			
52													
53	327C2					R1	R2	R3	Cond Avg				
54													
55	PM	E1	gr/dscf	y		0.0009		0.0023		0.0009		0.0014	
56	CO (RA)	E1	ppmv	y		2.0		5.5		5.7		4.4	
57	HC (RA)	E1	ppmv	y		5.0		4.5		4.3		4.6	
58	HCl	E1	ppmv	y	nd	0.3	nd	0.2	nd	0.2		0.2	
59	Cl2	E1	ppmv	y		0.1		0.3		0.2		0.2	
60	Total Chlorine	E1	ppmv	y		0.5		0.7		0.6		0.6	
61	Antimony	E2	ug/dscm	y	nd	7.8	nd	7.4	nd	7.7		7.6	
62	Arsenic	E2	ug/dscm	y	nd	6.6	nd	7.9	nd	6.5		7.0	
63	Barium	E2	ug/dscm	y		2.9		2.3		2.8		2.7	
64	Beryllium	E2	ug/dscm	y	nd	0.3		0.1	nd	0.3		0.2	
65	Cadmium	E2	ug/dscm	y		2.1		1.3		0.8		1.4	
66	Chromium	E2	ug/dscm	y		4.3		18.3		2.7		8.4	
67	Lead	E2	ug/dscm	y	nd	6.6		53.8	nd	6.5		22.3	
68	Mercury	E2	ug/dscm	y		599.1		328.8		300.1		409.4	
69	Silver	E2	ug/dscm	y	nd	2.6	nd	2.5	nd	2.6		2.6	
70	Thallium	E2	ug/dscm	y	nd	13.2	nd	12.5	nd	13.0		12.9	
71	SVM	E2	ug/dscm	y		8.7		55.2		7.3		23.7	

	B	C	D	E	F	G	H	I	J	K	L	M
72	LVM	E2	ug/dscm	y		11.1		26.4		9.4		15.7
73												
74	Hexachloroethane	E3	%			99.99996		99.999995		100		
75	Monochlorobenzene	E3	%			99.99997		99.999965		99.99985		
76	PCBs	E3	%			99.99998		99.999984		99.99986		
77												
78	Sampling Train	Haloge E1										
79	Stack Gas Flowrate		dscfm			34278.0		31509.0		31127.0		
80	O2		%			10.5		8.9		9.0		
81	Moisture		%			22.4		24.4		25.1		
82	Temperature		°F			144.0		146.0		144.0		
83												
84	Sampling Train	Metals E2										
85	Stack Gas Flowrate		dscfm			33523.0		30830.0		29811.0		
86	O2		%			10.5		8.9		9.0		
87	Moisture		%			22.7		24.0		24.5		
88	Temperature		°F			144.0		144.0		144.0		
89												
90	Sampling Train	SVOC E3										
91	Stack Gas Flowrate		dscfm			34493.0		32060.0		31887.0		
92	O2		%			9.3		9.7		8.6		
93	Moisture		%			24.1		24.9		23.5		
94	Temperature		°F			150.0		143.0		148.0		
95												
96	327C3					R1		R2		R3		Cond Avg
97												
98	PM	E1	gr/dscf	y		0.0000		0.0012		0.0002		0.0005
99	CO	E1	ppmv	y		12.5		4.1		12.7		9.8
100	HC	E1	ppmv	y		8.5		5.2		7.1		6.9
101	HCl	E1	ppmv	y		0.6 nd		0.2		3.3		1.4
102	Cl2	E1	ppmv	y		0.3		0.1		0.1		0.2
103	Total Chlorine	E1	ppmv	y		1.2		0.5		3.6		1.7
104	Antimony	E2	ug/dscm	y	nd	6.9 nd		7.2 nd		5.2		6.4
105	Arsenic	E2	ug/dscm	y	nd	5.8 nd		6.1 nd		8.1		6.7
106	Barium	E2	ug/dscm	y		2.9		3.4		5.0		3.8
107	Beryllium	E2	ug/dscm	y	nd	0.2 nd		0.2 nd		0.3		0.3
108	Cadmium	E2	ug/dscm	y		44.1		9.5		2.4		18.7
109	Chromium	E2	ug/dscm	y		4.0		9.5		9.2		7.6
110	Lead	E2	ug/dscm	y		11.6		24.3		20.7		18.9
111	Mercury	E2	ug/dscm	y		788.9		157.8		2587.4		1178.0
112	Silver	E2	ug/dscm	y	nd	2.3 nd		2.4 nd		3.2		2.6
113	Thallium	E2	ug/dscm	y	nd	11.6 nd		12.1 nd		16.3		13.3
114	SVM	E2	ug/dscm	y		55.7		33.8		23.1		37.6
115	LVM	E2	ug/dscm	y		10.1		15.8		17.6		14.5
116												
117	Hexachloroethane	E3	%			99.99998		99.999975		99.99998		
118	Monochlorobenzene	E3	%			99.99996		99.999975		99.99997		
119	PCBs	E3	%			99.99999		99.999997		100		
120												
121	Sampling Train	Haloge E1										
122	Stack Gas Flowrate		dscfm			31476.0		34124.0		33108.0		
123	O2		%			8.1		9.9		12.2		
124	Moisture		%			27.6		25.7		25.7		
125	Temperature		°F			150.0		146.0		143.0		
126												
127	Sampling Train	Metals E2										
128	Stack Gas Flowrate		dscfm			31104.0		33367.0		33643.0		
129	O2		%			8.1		9.9		12.2		
130	Moisture		%			27.4		25.7		24.9		
131	Temperature		°F			149.0		144.0		143.0		
132												
133	Sampling Train	SVOC E3										
134	Stack Gas Flowrate		dscfm			32953.0		33204.0		32334.0		
135	O2		%			9.5		9.4		9.5		
136	Moisture		%			24.7		25.3		29.4		
137	Temperature		°F			147.0		147.0		155.0		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Feedstream 1																				
2																					
3																					
4	327C10	Trial burn	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg	Cond Avg
5																					
6	Feedstream Number		F1	F2	F3	F4	F5	F6	F7	F8											
7	Feed Class		Solid HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW											
8	Feed Class 2																				HW
9	Feedstream Description		Solids	FW Blend Liq A104	Sludge A103	Blend Liq A106A	Blend Liq A106B	AB Aqueous A105	Kiln Aqueous A102	Direct Burn A101											
0	Feed Rate	lb/hr		2207	2170	1867	1611	6530	1351	1710											
1	Thermal Feedrate	MM Btu/hr																			
2	Heating Value	Btu/lb		13300	2600	14500	9000 nd	600		8000											
3	Viscosity	Cps		8.02	394	7.5	19	3.51		4.51											
4	Density	kg/L																			
5	Ash	lb/hr																			
6	Chlorine	mg/kg		142666.7	62850	105425.0	318000	1865.75		368750											
7	Mercury	mg/kg		50.9	0.15 nd	0.03 nd	0.028 nd	0.02		1.2											
8	Antimony	mg/kg	nd	10 nd	10	14	11 nd	10	nd	10								nd			10
9	Arsenic	mg/kg		18 nd	10 nd	10 nd	10 nd	10	nd	10								nd			10
0	Barium	mg/kg	nd	10	42.5 nd	10 nd	10 nd	10	nd	10								nd			10
1	Beryllium	mg/kg	nd	5 nd	5 nd	5 nd	5 nd	5	nd	5								nd			5
2	Cadmium	mg/kg	nd	2 nd	2 nd	2 nd	2.0 nd	2	nd	2								nd			2
3	Chromium	mg/kg		4127.3	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
4	Copper	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
5	Lead	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
6	Manganese	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
7	Nickel	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
8	Selenium	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
9	Silver	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
0	Thallium	mg/kg	nd	10 nd	10 nd	10 nd	10.0 nd	10	nd	10								nd			10
1																					
2	SVM	lb/hr																			
3	LVM	lb/hr																			
4																					
5	Stack Gas Flowrate	dscfm		33246.67																	
6	Oxygen	%		8.866667																	
7																					
8	Thermal Feedrate	MMBtu/hr																			
9	Estimated Firing Rate	MMBtu/hr																			
0																					
1	Feedrate MTEC Calculations																				
2	Ash	mg/dscm																			
3	Chlorine	ug/dscm		2921748	1265561	1826442	4753797	113054		5851216											16731817
4	Mercury	ug/dscm		1042	3	100	1	100		19	0										1066
5	Antimony	ug/dscm	100	205	100	201	243	164	100	606								100			159 74
6	Arsenic	ug/dscm		369	100	201	173	100		606								100			159 78
7	Barium	ug/dscm	100	205	100	856	100	173	100	606								100			159 60
8	Beryllium	ug/dscm	100	102	100	101	100	87	100	303								100			79 100
9	Cadmium	ug/dscm	100	41	100	40	100	35	100	121								100			32 100
0	Chromium	ug/dscm		84526	201	100	173	100		606								100			159 1
1	Copper	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
2	Lead	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
3	Manganese	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
4	Nickel	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
5	Selenium	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
6	Silver	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
7	Thallium	ug/dscm	100	205	100	201	100	173	100	606								100			159 100
8																					
9	SVM	ug/dscm		100	245.75	100	241.63	100	207.89	100								100			190.41 100
0	LVM	ug/dscm		###	84996.9	60	503.4	100	433.1	100								100			396.7 4

	B	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	Feedstream 1													
2														
3														
4	327C10		Cond Avg		Cond Avg		R1		R2		R3		Cond Avg	
5														
6	Feedstream Number		F9		F10		F11		F11		F11		F11	
7	Feed Class		Oil		Spike		Total		Total		Total		Total	
8	Feed Class 2		MF		Spike		Total		Total		Total		Total	
9	Feedstream Description		Fuel Oil		Spike		Total		Total		Total		Total	
10	Feed Rate				3386.5									
11	Thermal Feedrate													
12	Heating Value		19200											
13	Viscosity		5.76											
14	Density													
15	Ash						9764		10575		9342		9894 lb/hr	
16	Chlorine		1550		858408.1		2984		2839		2897		2907.0 lb/hr	
17	Mercury		0.052		147.9		0.501		0.5		0.501		0.501 lb/hr	
18	Antimony	nd	10											
19	Arsenic	nd	10											
20	Barium	nd	10											
21	Beryllium	nd	5											
22	Cadmium	nd	2											
23	Chromium	nd	10		41635.89									
24	Copper	nd	10											
25	Lead	nd	10		99808.03									
26	Manganese	nd	10											
27	Nickel	nd	10											
28	Selenium	nd	10											
29	Silver	nd	10											
30	Thallium	nd	10											
31														
32	SVM				338		300		356		357		338 lb/hr	
33	LVM				141		128		147		148		141 lb/hr	
34														
35	Stack Gas Flowrate						34344		33436		33647		33809	
36	Oxygen						9.2		8.5		8.9		8.87	
37														
38	Thermal Feedrate													
39	Estimated Firing Rate													
40														
41	<i>Feedrate MTEC Calculat</i>													
42	Ash						90186.4		94711.4		85892.3		90282.9	
43	Chlorine				26975096		27562090		25426540		26635630		26526428	
44	Mercury				4649		4627.5		4478.1		4606.3	0.05	4571.6	
45	Antimony											74.2	1578	
46	Arsenic											77.8	1657	
47	Barium											60.2	2148	
48	Beryllium											100	747	
49	Cadmium											100	299	
50	Chromium				1308390							0.08	1394204	
51	Copper											100	1494	
52	Lead				3136423							0.05	3137917	
53	Manganese											100	1494	
54	Nickel											100	1494	
55	Selenium											100	1494	
56	Silver											100	1494	
57	Thallium											100	1494	
58														
59	SVM				3136423		2770987.6		3188393.2		3282333.5	0.06	3084256.2	
60	LVM				1308390		1182288.0		1316555.6		1360743.3	0.24	1286627.6	

	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			
1	Feedstream 2																												
2																													
3																													
4	327C1		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2						
5																													
6	Feedstream Number		F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4						
7	Feed Class		Solid HW		Solid HW		Solid HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW				
8	Feed Class 2																												
9	Feedstream Description		Apron Solid		Apron Solid		Apron Solid		Aqueous		Aqueous		Aqueous		Blended liquid		Blended liquid		Blended liquid		Direct burn liquid		Direct burn liquid						
10	Feed Rate	lb/hr	195		1541		1901		1958		6044		5423		4658		908		746										
11	Heating Value	ppm	1699		200		200		200		11152		11168		12500		9926		9134										
12	Ash	wt %	31.24		1.51		0.40		0.38		0.24		0.21		0.18		0.03		0.11										
13	Chlorine	lb/hr																											
14	Antimony	ppmw	8.50		1274.08		11.11		8.69 nd		2.90 nd		2.90 nd		2.90 nd		3.00 nd		2.80 nd										
15	Arsenic	ppmw	66.00		3332.20		151.53		161.63 nd		2.40 nd		2.50 nd		2.40 nd		2.50 nd		2.30 nd										
16	Barium	ppmw	811.00		4959.10		52.23		42.43		7.92		14.80		1.57		2.62		2.55										
17	Beryllium	ppmw	176.41		71.50		0.68		0.45		0.29		0.29		0.38		0.35		0.09										
18	Cadmium	ppmw	0.77		293.04		35.66		41.32 nd		0.15		0.29 nd		0.14 nd		0.15 nd		0.14 nd										
19	Chromium	ppmw	89.20		5184.51		438.42		505.10		1.12		1.81		0.29		0.35		0.28										
20	Lead	ppmw	380.00		960.46		8.59		7.27		5.90		8.80		5.20 nd		2.50 nd		2.30 nd										
21	Mercury	ppmw	0.91		20.68		15.05		32.12 nd		0.13		0.16 nd		0.15 nd		0.11 nd		0.13 nd										
22	Silver	ppmw	13.00		28.42		0.43		0.24 nd		1.00 nd		0.98 nd		0.95 nd		0.99 nd		0.93 nd										
23	Thallium	ppmw	nd	11.00	98.01 nd		1.01		1.11 nd		4.90 nd		4.90 nd		4.80 nd		4.90 nd		4.60 nd										
24																													
25	Stack Gas Flowrate	dscfm	34258		32783		31149		34258		32783		31149		34258		32783		31149		34258		32783						
26	Oxygen	%	9.91		9.42		9.59		9.91		9.42		9.59		9.91		9.42		9.59		9.91		9.42						
27																													
28	<i>Feedrate MTEC Calculations</i>																												
29	Ash	mg/dscm	601		0		0		229		75		78		142.93		112		88		3		8						
30	Chlorine	ug/dscm																											
31	Antimony	ug/dscm	16		19349		208		179 100		173 100		155 100		142 100		27 100		21 100										
32	Arsenic	ug/dscm	127		50606		2841		3334 100		143 100		134 100		118 100		22 100		17 100										
33	Barium	ug/dscm	1560		75313		979		875		472		791		77		23		19										
34	Beryllium	ug/dscm	138		2679		13		9		17		16		19		3		1										
35	Cadmium	ug/dscm	1		4450		669		852 100		9		16 100		7 100		1 100		1 100										
36	Chromium	ug/dscm	172		78736		8220		10418		67		97		14		3		2										
37	Lead	ug/dscm	731		14586		161		150 100		351		471 100		255 100		22 100		17 100										
38	Mercury	ug/dscm	2		314		282		663 100		8		9 100		8 100		1 100		1 100										
39	Silver	ug/dscm	25		432		8		5 100		60 100		52 100		47 100		9 100		7 100										
40	Thallium	ug/dscm	100	21	1488 100		19		23 100		292 100		262 100		236 100		44 100		34 100										
41																													
42	SVM	ug/dscm	732		19037		830		1002 2		360		486 3		262 4		24 5		18 2										
43	LVM	ug/dscm	436		132021		11073		13761 63		227 54		246 78		151 78		29 86		20 26										
44																													
45	327C2		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2						
46																													
47	Feedstream Number		F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4						
48	Feed Class		Solid HW		Solid HW		Solid HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW				
49	Feed Class 2																												
50	Feedstream Description		Apron Solid		Apron Solid		Apron Solid		Aqueous		Aqueous		Aqueous		Blended liquid		Blended liquid		Blended liquid		Direct burn liquid		Direct burn liquid						
51	Feed Rate	lb/hr	592		514		608		1142		1296		1297		5148		5988		5889		816		569						
52	Heating Value	Btu/lb	3326		683		4126		200		200		200		12060		11450		11525		200		200						
53	Ash	wt%	58.84		66.54		57.65		2.56		1.27		2.83		0.12		0.21		0.09		0.01		0.01						
54	Chlorine	lb/hr																											
55	Antimony	ppmw	11.00 nd		3.50 nd		4.10		8.34		4.94		3.14 nd		2.90 nd		2.90 nd		3.00 nd		0.61 nd		0.60						
56	Arsenic	ppmw	nd	33.00	370.00 nd		34.00		29.78		19.76		14.72 nd		2.50 nd		2.40 nd		2.50 nd		0.50 nd		0.50						
57	Barium	ppmw	741.00		758.00		450.00		4.10		22.62		1.08		2.06		8.60		12.80		0.11		0.07						
58	Beryllium	ppmw	93.00		89.70		58.20		1.64		0.76		0.38 nd		0.10 nd		0.10		0.10 nd		0.02 nd		0.02 nd						
59	Cadmium	ppmw	nd	1.95 nd	1.74		4.11		1.62		1.03 nd		0.03 nd		0.15		0.29		0.40 nd		0.03 nd		0.03 nd						
60	Chromium	ppmw	352.00		133.00		452.00		79.50		51.96		39.95		0.88		1.30		1.54 nd		0.04 nd		0.04						

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1	Feedstream 2																						
2																							
3																							
4	327C1	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
5																							
6	Feedstream Numb	F4		F5		F5		F5		F5		F6		F6		F6		F6		F6		F6	
7	Feed Class	Liq HW		Sludge HW		Sludge HW		Sludge HW								Total		Total		Total		Total	
8	Feed Class 2								HW		HW			HW		Total		Total		Total		Total	
9	Feedstream Descr	Direct burn liquid		Pumpable sludge		Pumpable sludge		Pumpable sludge								Total		Total		Total		Total	Units for total
10	Feed Rate	684		1900		3902		3642															
11	Heating Value	8883		200		200		200															
12	Ash	0.18		3.37		3.39		4.18															
13	Chlorine															2068.4		2071.5		2168.3		lb/hr	
14	Antimony	1.72 nd		2.70 nd		2.60 nd		2.80								0.38		7.55		4.27		lb/hr	
15	Arsenic	1.43 nd		2.30 nd		2.20 nd		2.40								1.49		5.02		3.07		lb/hr	
16	Barium	14.50		21.90		41.10		27.60								2.90		130.12		73.32		lb/hr	
17	Beryllium	0.41		14.40		26.00		16.90								0.03		0.60		0.34		lb/hr	
18	Cadmium	0.10		1.09		2.28		1.52								0.88		0.92		0.54		lb/hr	
19	Chromium	3.60		47.80		73.30		49.80								9.60		67.74		40.34		lb/hr	
20	Lead	6.27		50.00		92.00		62.00								3.88		166.54		94.46		lb/hr	
21	Mercury	0.10		0.18 nd		0.13 nd		0.17								0.75		3.39		1.93		lb/hr	
22	Silver	0.56 nd		0.91 nd		0.88 nd		0.95								0.00		1.22		1.83		lb/hr	
23	Thallium	2.82 nd		4.60 nd		4.40 nd		4.70								0.15		1.22		0.76		lb/hr	
24																							
25	Stack Gas Flowrat	31149		34258		32783		31149								34258		32783		31149			
26	Oxygen	9.59		9.91		9.42		9.59								9.91		9.42		9.59			
27																							
28	<i>Feedrate MTEC C:</i>																						
29	Ash	13		631		1304		1603		1607		1500		1783		1607		1500		1783		1630	
30	Chlorine															20379202		20425556		22836830		21213863	
31	Antimony	12 100		51 100		100 100		107 1.3		19616 57.0		484 59		441 6.7		3744 0		74445 1		44972 1		41054	
32	Arsenic	10 100		43 100		85 100		92 0.4		50941 7.6		3076 6		3554 1.4		14680 0		49499 1		32334 1		32171	
33	Barium	104		410		1581		1059		77778		3371		2115 0.0		28573 0		1283019 0		772216 0		694603	
34	Beryllium	3		270		1000		648		3107		1030		679 0.0		296 0		5916 0		3581 0		3264	
35	Cadmium	1		20		88		58 0.2		4482 0.1		773 1		918 0.1		8670 0		9071 0		5687 0		7810	
36	Chromium	26		895		2820		1910		79873		11139		12368 0.0		94585 0		667935 0		424866 0		395796	
37	Lead	45		936		3540		2378 2.2		16627 0.4		4189 11		2829 1.0		38228 0		1642130 0		994866 0		891741	
38	Mercury	1		3 100		5 100		6 2.7		328 2.1		297 2		677 0.1		7389 0		33426 0		20327 0		20381	
39	Silver	4 100		17 100		34 100		36 15.8		542 92.0		101 95		92 0		0 1		12030 0		19274 1		10434	
40	Thallium	20 100		86 100		169 100		180 22.9		1931 100		484 95		459 30.0		1478 4		12030 5		8004 6		7171	
41																							
42	SVM	46		957		3628		2437 0		21109 0		4962 0		3747 1		46899 0		1651201 0		1000553 0		899551	
43	LVM	39 4		1208 2		3906 3		2651 0		133920 2		15245 1		16601 0		109561 0		723350 0		460781 0		431231	
44																							
45	327C2	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
46																							
47	Feedstream Numb	F4		F5		F5		F5		F5		F6		F6		F6		F6		F6		F6	
48	Feed Class	Liq HW		Sludge HW		Sludge HW		Sludge HW								Total		Total		Total		Total	
49	Feed Class 2								HW		HW			HW		Total		Total		Total		Total	
50	Feedstream Descr	Direct burn liquid		Pumpable sludge		Pumpable sludge		Pumpable sludge								Total		Total		Total		Total	Units for total
51	Feed Rate	584		1147		868		1009															
52	Heating Value	200		200		200		200															
53	Ash	0.01		0.27		0.31		0.24															
54	Chlorine															1616.20		2312.00		4383.00		lb/hr	
55	Antimony	0.07 nd		2.90 nd		3.00 nd		2.90								0.61		0.38		0.99		lb/hr	
56	Arsenic	0.13 nd		2.50 nd		2.50		2.90								5.73		2.95		12.98		lb/hr	
57	Barium	0.03		0.20		5.48		0.48								7.23		6		15.08		lb/hr	
58	Beryllium	0.00		0.69 nd		0.10 nd		0.10								0		0		0		lb/hr	
59	Cadmium	0.00 nd		0.15 nd		0.15 nd		0.14								0.25		0.14		0.35		lb/hr	
60	Chromium	0.01 nd		0.20 nd		0.20 nd		0.19								8.87		4.75		40.29		lb/hr	

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
61	Lead	0.50 nd		2.50 nd		2.50 nd		2.40								17		13.03		32.56			lb/hr
62	Mercury	0.00 nd		0.15 nd		0.15 nd		0.07								1.15		0.81		2.05			lb/hr
63	Silver	0.02 nd		0.98 nd		1.00 nd		0.95								0		0		0			lb/hr
64	Thallium	0.10 nd		4.90 nd		5.00 nd		4.80								0.15		0.08		0.31			lb/hr
65																							
66	Stack Gas Flowrat	31127		34278		31509		31127								34278		31509		31127			
67	Oxygen	9.0		10.5		8.9		9.0								10.5		8.9		9.0			
68																							
69	Feedrate MTEC C:																						
70	Ash	0.58		32.06		26.36		24.19		4003		3663		3945		4003		3663		3945			3870
71	Chlorine															16729131		22661925		43777799			27722951
72	Antimony	0.4 100		34.4 100		25.5 100		29.2 53.9		360 78		279 85		272 3		6314 6		3725 2		9888 3			6642
73	Arsenic	0.8 100		29.7 100		21.3		29.2 51.2		721 7.2		2279 61.6		574 1		59311 1		28916 0		129645 0			72624
74	Barium	0.2		2.3		46.6		4.8 0.0		4699 0.0		4657 0.0		3505 0		74837 0		58811 0		150620 0			94756
75	Beryllium	0.0		8.2 100		0.9 100		1.0 0.9		602 1.4		468 0.3		365		0		0		0			0
76	Cadmium	0.0 100		1.7 100		1.3 100		1.4 53.2		41 25.4		40 3.7		50 1		2588 1		1372 0		3496 0			2485
77	Chromium	0.0 100		2.3 100		1.7 100		2.0 0.1		3145 0.1		1408 0.1		3355 0		91813 0		46559 0		402420 0			180264
78	Lead	2.9 100		29.7 100		21.3 100		24.2 0.6		5325 0.6		3887 1.3		2125 0		175965 0		127718 0		325212 0			209632
79	Mercury	0.0 100		1.8 100		1.3 100		0.7 5.2		156 21.0		46 11.7		28 0		11904 0		7940 0		20476 0			13440
80	Silver	0.1 100		11.6 100		8.5 100		9.6 100		76 80		86 100		102		0		0		0			0
81	Thallium	0.6 100		58.2 100		42.5 100		48.4 100		768 100		640 100		781 49		1553 82		784 25		3096 40			1811
82																							
83	SVM	3.0 100		31.4 100		22.5 100		25.6 0.8		5363 0.8		3925 1.3		2175 0		178553 0		129091 0		328708 0			212117
84	LVM	0.8 80		40.2 100		23.8 9		32.1 8.4		4466 4.1		4154 8.3		4295 0		151123 0		75474 0		532066 0			252888
85																							
86	327C3	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3			Cond Avg
87																							
88	Feedstream Numb	F4		F5		F5		F5		F5						F6		F6		F6			F6
89	Feed Class	Liq HW		Sludge HW		Sludge HW		Sludge HW								Total		Total		Total			Total
90	Feed Class 2									HW		HW		HW		Total		Total		Total			Total
91	Feedstream Descr	Direct burn liquid		Pumpable sludge		Pumpable sludge		Pumpable sludge								Total		Total		Total			Total
92	Feedrate	526		750		266		217								Total		Total		Total			Total
93	Heating value	5314		200		200		200								Total		Total		Total			Total
94	Ash	0.16		0.27		0.27		0.04								Total		Total		Total			Total
95	Chlorine															1543.5		2070.90		1533.2			lb/hr
96	Antimony	2.90 nd		2.90 nd		3.00 nd		2.90								0.31		0.31		0.08			lb/hr
97	Arsenic	2.40 nd		2.40		4.00		3.80								1.46		1.55		0.66			lb/hr
98	Barium	597.00		0.24		0.60		0.43								5.68		6.33		3.34			lb/hr
99	Beryllium	4.41 nd		0.10		0.15		0.19								0		0.00		0			lb/hr
100	Cadmium	9.17 nd		0.14 nd		0.15 nd		0.14								1.44		1.73		0.79			lb/hr
101	Chromium	125.00 nd		0.19 nd		0.20		0.24								22.77		17.06		8.02			lb/hr
102	Lead	330.00 nd		2.40 nd		2.50		2.90								51.09		40.19		2.56			lb/hr
103	Mercury	0.50 nd		0.15 nd		0.13 nd		0.10								1.02		1.21		0.57			lb/hr
104	Silver	1.50 nd		0.96 nd		1.00 nd		0.95								0		0.00		0			lb/hr
105	Thallium	4.90 nd		4.80 nd		5.00 nd		4.80								0.15		0.31		0.08			lb/hr
106																							
107	Stack Gas Flowrat	33108		31476		34124		33108								31476		34124		33108			
108	Oxygen	12.2		8.1		9.9		12.2								8.1		9.9		12.2			
109																							
110	Feedrate MTEC C:																						
111	Ash	10.78		18.61		7.09		1.11		34012		7397		46981		34012		7397		46981			29464
112	Chlorine															14185316		20465503		19631404			18094074
113	Antimony	19.5 100		20.0 100		7.9 100		8.1 54.2		429 62.9		345 99.9		412 8		2849 7		3064 40		1024 12			2312
114	Arsenic	16.2 100		16.5		10.5		10.6 5.5		2938 8.9		1952 5.3		2276 1		13418 1		15318 1		8451 1			12395
115	Barium	4022.3		1.7		1.6		1.2		13322		12213		26885 0		52201 0		62556 0		42766 0			52508
116	Beryllium	29.7 100		0.7		0.4		0.5 1.2		1972		531		2590		0		0		0			0
117	Cadmium	61.8 100		1.0 100		0.4 100		0.4 63.8		77 1.9		97 0.4		111 0		13234 0		17097 0		10115 0			13482
118	Chromium	842.2 100		1.3 100		0.5		0.7 0.0		2830		2149		4770 0		209264 0		168594 0		102690 0			160183
119	Lead	2223.4 100		16.5 100		6.6		8.1 10.9		11942 0.1		7040		12398 0		469535 0		397174 0		32779 0			299830
120	Mercury	3.3 100		1.1 100		0.3 100		0.3 4.6		89 3.2		58 0.1		240 0		9374 0		11958 0		7298 0			9543

	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	Silver		ug/dscm		274.4		56.1		219.8	100	11.0	100	1.8	100	0.1	100	52.5	100	61.6	100	62.3	100	9.2	100	7.4			
22	Thallium		ug/dscm	100	233.5	100	48.7	100	406.4	100	54.9	100	9.1	100	0.7	100	262.3	100	305.1	100	203.6	100	25.0	100	36.6	100		
23																												
24	SVM		ug/dscm		10247.4		4372.8		9343.1	2	106.0		141.2		9.1		310.6		1226.0		863.8	100	1337.4	100	1389.7			
25	LVM		ug/dscm		6275.3		2761.4		8300.9		635.4		685.0		49.0		180.7		502.7		335.1	6	565.3	3	594.6			
26																												
27	327C4				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2			
28																												
29	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4			
30	Feed Class				Solid HW		Solid HW		Solid HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW			
31	Feedstream Description				Apron Solid		Apron Solid		Apron Solid		Aqueous		Aqueous		Aqueous		Blended liquid		Blended liquid		Blended liquid		Direct burn liquid		Direct burn liquid			
32	Feed Rate		lb/hr		5504		7148		6692								822		834		420							
33	Heating Value		Btu/lb		5251		5260		5260								25547		26019		30952							
34	Ash		wt %		0.00		0.00		0.00								0.00		0.00		0.00							
35	Mercury		ppmw		19.99		20.01		20.02								0.17		0.17		0.17							
36																												
37	Stack Gas Flowrate		dscfm																									
38	Oxygen		%																									
39																												
40	<i>Feedrate MTEC Calculations</i>																											
41	Ash		mg/dscm																									
42	Mercury		ug/dscm																									
43																												
44	327C5				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2			
45																												
46	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4			
47	Feed Class				Solid HW		Solid HW		Solid HW		Liq non-HW		Liq non-HW		Liq non-HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW			
48	Feedstream Description				Apron Solid		Apron Solid		Apron Solid		Aqueous		Aqueous		Aqueous		Blended liquid		Blended liquid		Blended liquid		Direct burn liquid		Direct burn liquid			
49	Feed Rate		lb/hr		5006		8248		7085								918		474		1044							
50	Heating Value		Btu/lb		5254		5250		5251								20915		21941		20785							
51	Ash		wt %		0.00		0.00		0.00								0.00		0.00		0.00							
52	Mercury		ppmw		19.98		20.00		20.04								0.17		0.17		0.17							

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
121	Silver	10.1	100	6.6	100	2.6	100	2.6	22.4	354	56.7	130	22.1	295	0	0	0	0	0	0	0	0	0
122	Thallium	33.0	100	33.1	100	13.1	100	13.3	100	609	100	413	100	657	44	1379	13	3064	64	1024	31	1822	
123																							
124	SVM	2285.2	100	8.8	100	3.5	5	8.5	11.2	12010	19.5	7133	0.0	12510	0	482769	0	414271	0	42894	0	313312	
125	LVM	880.0	100	9.3	5	11.2		11.8		222682		183912		111140	0	222682	0	183912	0	111140	0	172578	
126																							
127	327C4	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
128																							
129	Feedstream Numb	F4		F5		F5		F5								F6		F6		F6		F6	
130	Feed Class	Liq HW		Sludge HW		Sludge HW		Sludge HW								Total		Total		Total		Total	
131	Feedstream Descr	Direct burn liquid		Pumpable sludge		Pumpable sludge		Pumpable sludge								Total		Total		Total		Total	
132	Feed Rate																						
133	Heating Value																						
134	Ash																						
135	Mercury																						
136																							
137	Stack Gas Flowrat																						
138	Oxygen																						
139																							
140	Feedrate MTEC C:																						
141	Ash																						
142	Mercury																						
143																							
144	327C5	R3		R1		R2		R3								R1		R2		R3		Cond Avg	
145																							
146	Feedstream Numb	F4		F5		F5		F5								F6		F6		F6		F6	
147	Feed Class	Liq HW		Sludge HW		Sludge HW		Sludge HW								Total		Total		Total		Total	
148	Feedstream Descr	Direct burn liquid		Pumpable sludge		Pumpable sludge		Pumpable sludge								Total		Total		Total		Total	
149	Feed Rate			273		486		490															
150	Heating Value			0		0		0															
151	Ash			0.00		0.00		0.00															
152	Mercury			0.01		0.01		0.01															

	B	C	D	E	F	G
1	Process Information					
2						
3	327C10	Trial burn				
4						
5	Kiln Exit Temp	°F		1819	1824	1803
6	Afterburner Exit Temp	°F		2025	2015	2013
7	Activated Carbon Inj Rate	lb/hr		25	25	25
8	Baghouse Pressure Drop	w.c		5.31	5.18	5.11
9	Baghouse Temperature	°F		375	375	376
10	First Stage Scrubber pH	pH		5.41	5.55	5.44
11	First Stage Scrubber Flowrate	gpm		1952	1961	1954
12	Second Stage Scrubber pH	pH		6.32	6.43	5.94
13	Second Stage Scrubber Flowrate	gpm		2132	2142	2156
14	Second Stage Liquid Turbidity	NTU		378	329	315
15	WESP Power unit 1	KVA		9.49	10.35	10.22
16	WESP Power unit 2	KVA		14.11	15.27	14.67
17	Kiln Rotation	rpm		0.192	0.192	0.188

	C	D	E	F	G
1	Process Information 2				
2			R1	R2	R3
3	327C1				
4					
5	Afterburner Temperature	F	2099	2114	2185
6	Kiln Temperature	F	2090	2091	2085
7	WS Temperature	F	174	175	175
8	FF Temperature	F	469	470	470
9	FF Pressure Drop	in H2O	2.3		3
10	WESP Power	kVA	30	27.5	24.8
11	WS pH		7.44	7.5	7.4
12					
13	327C2				
14					
15	Afterburner Temperature	F	2060	2140	2095
16	Kiln Temperature	F	2145	2152	2209
17	WS Temperature	F	175	176	176
18	FF Temperature	F	460	471	468
19	FF Pressure Drop	in H2O	4.1	3.3	3.4
20	WESP Power	kVA	29.7	29.5	28.9
21	WS pH		7.6	7.5	6.5
22					
23	327C3				
24					
25	Afterburner Temperature	F	2185	1996	1920
26	Kiln Temperature	F	2170	2065	2087
27	WS Temperature	F	177	175	174
28	FF Temperature	F	468	467	466
29	FF Pressure Drop	in H2O		3.2	2.9
30	WESP Power	kVA	29.3	27.8	28
31	WS pH		8.5	8	6.9
32					
33	327C4				
34					
35	Afterburner Temperature	F	2066	2146	
36	Kiln Temperature	F	2084	2121	2147
37	FF Temperature	F	444	460	396
38	FF Pressure Drop	in H2O	3.1	2.8	2.9
39	WESP Power	kVA	41.5	41.8	42.1
40	WS pH		7.2	7.36	7.4
41					
42	327C5				
43					
44	Afterburner Temperature	F	2080	2161	2069
45	Kiln Temperature	F	2070	2141	2098
46	FF Temperature	F	467	468	408
47	FF Pressure Drop	in H2O	3.7	3.8	3.9
48	WESP Power	kVA	41.1	41.6	41.7
49	WS pH		7.2	7.1	7.1

	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:		Safety Kleen, Aragonite, UT															
4	Condition ID:		327C10															
5	Condition/Test Date:		Trial burn, to set oper limits on all constituents. June 13-16, 2001															
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	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
10	Detected in sample volume (ng)																	
11	2,3,7,8-TCDD	1	nd	0.021	0.02	0.01	0.01	nd	0.023	0.02	0.01	0.01	nd	0.019	0.019	0.010	0.010	
12	1,2,3,7,8-PCDD	0.5	nd	0.092	0.05	0.05	0.02	nd	0.102	0.05	0.05	0.03	nd	0.07	0.035	0.035	0.018	
13	1,2,3,4,7,8-HxCDD	0.1	nd	0.114	0.01	0.06	0.01	nd	0.131	0.01	0.07	0.01	nd	0.083	0.008	0.042	0.004	
14	1,2,3,6,7,8-HxCDD	0.1	nd	0.274	0.03	0.14	0.01	nd	0.322	0.03	0.16	0.02	nd	0.193	0.019	0.097	0.010	
15	1,2,3,7,8,9-HxCDD	0.1	nd	0.114	0.01	0.06	0.01	nd	0.138	0.01	0.07	0.01	nd	0.084	0.008	0.042	0.004	
16	1,2,3,4,6,7,8-HpCDD	0.01		1.084	0.01	1.08	0.01		1.076	0.01	1.08	0.01		0.703	0.007	0.703	0.007	
17	OCDD	0.001		0.88	0.00	0.88	0.00		0.819	0.00	0.82	0.00		0.558	0.001	0.558	0.001	
18	2,3,7,8-TCDF	0.1	nd	0.259	0.03	0.13	0.01	nd	0.3	0.03	0.15	0.02	nd	0.215	0.022	0.108	0.011	
19	1,2,3,7,8-PCDF	0.05		0.321	0.016	0.321	0.016		0.369	0.02	0.37	0.02		0.269	0.013	0.269	0.013	
20	2,3,4,7,8-PCDF	0.5		0.751	0.376	0.751	0.376		0.922	0.46	0.92	0.46		0.694	0.347	0.694	0.347	
21	1,2,3,4,7,8-HxCDF	0.1		0.687	0.069	0.687	0.069		0.617	0.06	0.62	0.06		0.479	0.048	0.479	0.048	
22	1,2,3,6,7,8-HxCDF	0.1		0.515	0.052	0.515	0.052		0.572	0.06	0.57	0.06		0.467	0.047	0.467	0.047	
23	2,3,4,6,7,8-HxCDF	0.1		1.019	0.102	1.019	0.102		1.236	0.12	1.24	0.12		1.002	0.100	1.002	0.100	
24	1,2,3,7,8,9-HxCDF	0.1		0.244	0.024	0.244	0.024		0.286	0.03	0.29	0.03		0.221	0.022	0.221	0.022	
25	1,2,3,4,6,7,8-HpCDF	0.01		2.355	0.024	2.355	0.024		2.107	0.02	2.11	0.02		1.795	0.018	1.795	0.018	
26	1,2,3,4,7,8,9-HpCDF	0.01		0.424	0.004	0.424	0.004		0.442	0.00	0.44	0.00		0.33	0.003	0.330	0.003	
27	OCDF	0.001		1.538	0.002	1.538	0.002		1.488	0.00	1.49	0.00		1.185	0.001	1.185	0.001	
28	Total TCDD	0	nd	1.621	0.000	0.811	0.000	nd	1.821	0.00	0.91	0.00	nd	1.362	0.000	0.681	0.000	
29	Total PCDD	0	nd	2.644	0.000	1.322	0.000	nd	2.982	0.00	1.49	0.00	nd	2.177	0.000	1.089	0.000	
30	Total HxCDD	0		3.99	0.000	3.990	0.000		4.778	0.00	4.78	0.00		3.077	0.000	3.077	0.000	
31	Total HpCDD	0		2.324	0.000	2.324	0.000		2.369	0.00	2.37	0.00		1.594	0.000	1.594	0.000	
32	Total TCDF	0	nd	8.321	0.000	4.161	0.000	nd	12.501	0.00	6.25	0.00	nd	8.422	0.000	4.211	0.000	
33	Total PCDF	0		7.083	0.000	7.083	0.000		9.143	0.00	9.14	0.00		6.84	0.000	6.840	0.000	
34	Total HxCDF	0		5.907	0.000	5.907	0.000		6.733	0.00	6.73	0.00		5.47	0.000	5.470	0.000	
35	Total HpCDF	0		4.157	0.000	4.157	0.000		3.993	0.00	3.99	0.00		3.318	0.000	3.318	0.000	
36																		
37	Gas sample volume (dscf)			112.20	112.20	112.20			115.63	115.63	115.63			114.22	114.22	114.22		
38	O2 (%)			8.20	8.20	8.20			8.4	8.4	8.4			8.60	8.60	8.60		
39																		
40	PCDD/PCDF (ng in sample)			0.82	32.2	0.75			0.952	38.0	0.871			0.72	28.0	0.66		
41	PCDD/PCDF (ng/dscm @ 7% O2) 17.4			0.28	11.08	0.26	17.1		0.32	12.89	0.30	15.5		0.25	9.79	0.23		
42																		
43	TEQ Cond Avg		0.26															
44	Total Cond Avg		11.25															

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:	Safety Kleen, Aragonite, UT															
4	Condition ID:	327C1															
5	Condition/Test Date:																
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	Detected in sample volume (ng)																
11	2,3,7,8-TCDD	1	0.020	0.02	0.02	0.02	0.080	0.08	0.08	0.08	0.040	0.040	0.040	0.040			
12	1,2,3,7,8-PCDD	0.5	0.380	0.19	0.38	0.19	0.480	0.24	0.48	0.24	0.220	0.110	0.220	0.110			
13	1,2,3,4,7,8-HxCDD	0.1	0.490	0.05	0.49	0.05	0.700	0.07	0.70	0.07	0.290	0.029	0.290	0.029			
14	1,2,3,6,7,8-HxCDD	0.1	1.100	0.11	1.10	0.11	1.400	0.14	1.40	0.14	0.650	0.065	0.650	0.065			
15	1,2,3,7,8,9-HxCDD	0.1	1.100	0.11	1.10	0.11	1.500	0.15	1.50	0.15	0.620	0.062	0.620	0.062			
16	1,2,3,4,6,7,8-HpCDD	0.01	5.100	0.05	5.10	0.05	7.200	0.07	7.20	0.07	3.300	0.033	3.300	0.033			
17	OCDD	0.001	4.700	0.00	4.70	0.00	6.700	0.01	6.70	0.01	3.400	0.003	3.400	0.003			
18	2,3,7,8-TCDF	0.1	0.430	0.04	0.43	0.04	0.520	0.05	0.52	0.05	0.360	0.036	0.360	0.036			
19	1,2,3,7,8-PCDF	0.05	0.610	0.031	0.610	0.031	0.750	0.04	0.75	0.04	0.410	0.021	0.410	0.021			
20	2,3,4,7,8-PCDF	0.5	1.800	0.900	1.800	0.900	1.900	0.95	1.90	0.95	1.300	0.650	1.300	0.650			
21	1,2,3,4,7,8-HxCDF	0.1	2.800	0.280	2.800	0.280	3.300	0.33	3.30	0.33	2.200	0.220	2.200	0.220			
22	1,2,3,6,7,8-HxCDF	0.1	1.100	0.110	1.100	0.110	1.500	0.15	1.50	0.15	0.840	0.084	0.840	0.084			
23	2,3,4,6,7,8-HxCDF	0.1	2.200	0.220	2.200	0.220	2.800	0.28	2.80	0.28	2.100	0.210	2.100	0.210			
24	1,2,3,7,8,9-HxCDF	0.1	0.060	0.006	0.060	0.006	0.060	0.01	0.06	0.01	0.070	0.007	0.070	0.007			
25	1,2,3,4,6,7,8-HpCDF	0.01	3.500	0.035	3.500	0.035	4.500	0.05	4.50	0.05	3.100	0.031	3.100	0.031			
26	1,2,3,4,7,8,9-HpCDF	0.01	0.370	0.004	0.370	0.004	0.460	0.00	0.46	0.00	0.620	0.006	0.620	0.006			
27	OCDF	0.001	2.000	0.002	2.000	0.002	1.900	0.00	1.90	0.00	2.900	0.003	2.900	0.003			
28	Total TCDD	0	8.600	0.000	8.600	0.000	10.600	0.00	10.60	0.00	5.700	0.000	5.700	0.000			
29	Total PCDD	0	16.000	0.000	16.000	0.000	11.300	0.00	11.30	0.00	6.000	0.000	6.000	0.000			
30	Total HxCDD	0	20.600	0.000	20.600	0.000	27.300	0.00	27.30	0.00	13.200	0.000	13.200	0.000			
31	Total HpCDD	0	12.300	0.000	12.300	0.000	17.200	0.00	17.20	0.00	7.400	0.000	7.400	0.000			
32	Total TCDF	0	15.200	0.000	15.200	0.000	19.800	0.00	19.80	0.00	12.600	0.000	12.600	0.000			
33	Total PCDF	0	18.800	0.000	18.800	0.000	20.600	0.00	20.60	0.00	14.400	0.000	14.400	0.000			
34	Total HxCDF	0	20.600	0.000	20.600	0.000	17.900	0.00	17.90	0.00	11.700	0.000	11.700	0.000			
35	Total HpCDF	0	12.300	0.000	12.300	0.000	8.200	0.00	8.20	0.00	6.700	0.000	6.700	0.000			
36																	
37	Gas sample volume (dscf)			71.08	71.08	71.08		62.27	62.27	62.27		79.27	79.27	79.27			
38	O2 (%)			10.42	10.42	10.42		10.4	10.4	10.4		10.42	10.42	10.42			
39																	
40	PCDD/PCDF (ng in sample)			2.16	131.1	2.16		2.616	141.5	2.616		1.61	84.0	1.61			
41	PCDD/PCDF (ng/dscm @ 7% O2)	0.0		1.42	86.25	1.42	0.0	1.96	106.26	1.96	0.0	0.95	49.55	0.95			
42																	
43	TEQ Cond Avg	1.45															
44	Total Cond Avg	80.68															

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:	Safety Kleen, Aragonite, UT																
4	Condition ID:	327C2																
5	Condition/Test Date:																	
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	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
10	Detected in sample volume (ng)																	
11	2,3,7,8-TCDD	1	0.030	0.03	0.03	0.03	0.030	0.03	0.03	0.03	0.030	0.030	0.030	0.030	0.030	0.030	0.030	
12	1,2,3,7,8-PCDD	0.5	0.260	0.13	0.26	0.13	0.320	0.16	0.32	0.16	0.180	0.090	0.180	0.090	0.180	0.090	0.180	
13	1,2,3,4,7,8-HxCDD	0.1	0.280	0.03	0.28	0.03	0.330	0.03	0.33	0.03	0.170	0.017	0.170	0.017	0.170	0.017	0.170	
14	1,2,3,6,7,8-HxCDD	0.1	0.640	0.06	0.64	0.06	0.660	0.07	0.66	0.07	0.410	0.041	0.410	0.041	0.410	0.041	0.410	
15	1,2,3,7,8,9-HxCDD	0.1	0.730	0.07	0.73	0.07	0.830	0.08	0.83	0.08	0.460	0.046	0.460	0.046	0.460	0.046	0.460	
16	1,2,3,4,6,7,8-HpCDD	0.01	2.900	0.03	2.90	0.03	2.900	0.03	2.90	0.03	1.600	0.016	1.600	0.016	1.600	0.016	1.600	
17	OCDD	0.001	2.500	0.00	2.50	0.00	2.600	0.00	2.60	0.00	1.300	0.001	1.300	0.001	1.300	0.001	1.300	
18	2,3,7,8-TCDF	0.1	0.370	0.04	0.37	0.04	0.310	0.03	0.31	0.03	0.240	0.024	0.240	0.024	0.240	0.024	0.240	
19	1,2,3,7,8-PCDF	0.05	0.490	0.025	0.490	0.025	0.510	0.03	0.51	0.03	0.290	0.015	0.290	0.015	0.290	0.015	0.290	
20	2,3,4,7,8-PCDF	0.5	1.400	0.700	1.400	0.700	1.200	0.60	1.20	0.60	0.830	0.415	0.830	0.415	0.830	0.415	0.830	
21	1,2,3,4,7,8-HxCDF	0.1	1.600	0.160	1.600	0.160	1.500	0.15	1.50	0.15	1.000	0.100	1.000	0.100	1.000	0.100	1.000	
22	1,2,3,6,7,8-HxCDF	0.1	0.600	0.060	0.600	0.060	0.620	0.06	0.62	0.06	0.440	0.044	0.440	0.044	0.440	0.044	0.440	
23	2,3,4,6,7,8-HxCDF	0.1	1.700	0.170	1.700	0.170	1.400	0.14	1.40	0.14	1.000	0.100	1.000	0.100	1.000	0.100	1.000	
24	1,2,3,7,8,9-HxCDF	0.1	0.080	0.008	0.080	0.008	0.070	0.01	0.07	0.01	0.040	0.004	0.040	0.004	0.040	0.004	0.040	
25	1,2,3,4,6,7,8-HpCDF	0.01	1.900	0.019	1.900	0.019	1.700	0.02	1.70	0.02	1.200	0.012	1.200	0.012	1.200	0.012	1.200	
26	1,2,3,4,7,8,9-HpCDF	0.01	0.330	0.003	0.330	0.003	0.240	0.00	0.24	0.00	0.140	0.001	0.140	0.001	0.140	0.001	0.140	
27	OCDF	0.001	1.300	0.001	1.300	0.001	0.880	0.00	0.88	0.00	0.530	0.001	0.530	0.001	0.530	0.001	0.530	
28	Total TCDD	0	5.700	0.000	5.700	0.000	5.800	0.00	5.80	0.00	3.700	0.000	3.700	0.000	3.700	0.000	3.700	
29	Total PCDD	0	10.700	0.000	10.700	0.000	6.600	0.00	6.60	0.00	3.600	0.000	3.600	0.000	3.600	0.000	3.600	
30	Total HxCDD	0	10.900	0.000	10.900	0.000	12.000	0.00	12.00	0.00	7.200	0.000	7.200	0.000	7.200	0.000	7.200	
31	Total HpCDD	0	6.800	0.000	6.800	0.000	6.800	0.00	6.80	0.00	3.900	0.000	3.900	0.000	3.900	0.000	3.900	
32	Total TCDF	0	13.900	0.000	13.900	0.000	13.200	0.00	13.20	0.00	8.900	0.000	8.900	0.000	8.900	0.000	8.900	
33	Total PCDF	0	16.000	0.000	16.000	0.000	14.900	0.00	14.90	0.00	9.100	0.000	9.100	0.000	9.100	0.000	9.100	
34	Total HxCDF	0	9.000	0.000	9.000	0.000	8.400	0.00	8.40	0.00	5.800	0.000	5.800	0.000	5.800	0.000	5.800	
35	Total HpCDF	0	4.300	0.000	4.300	0.000	2.900	0.00	2.90	0.00	2.400	0.000	2.400	0.000	2.400	0.000	2.400	
36																		
37	Gas sample volume (dscf)			72.71	72.71	72.71		71.93	71.93	71.93			75.45	75.45	75.45			
38	O2 (%)			10.02	10.02	10.02		10.02	10.02	10.02			10.02	10.02	10.02			
39																		
40	PCDD/PCDF (ng in sample)			1.54	81.1	1.54		1.439	74.1	1.439			0.96	46.4	0.96			
41	PCDD/PCDF (ng/dscm @ 7% O2)	0.0		0.95	50.25	0.95	0.0	0.90	46.40	0.90	0.0		0.57	27.73	0.57			
42																		
43	TEQ Cond Avg		0.81															
44	Total Cond Avg		41.46															

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	327C4													
2														
3	ng/dscm	I-TEF		Total	Run 1			Total	Run 2			Total	Run 3	
4		Wt Fact		Full ND	1/2 ND	1/2 ND	TEQ	Full ND	1/2 ND	1/2 ND	TEQ	Full ND	1/2 ND	1/2 ND
5	4D 2378	1	2	0.0131	0.0131	0.0131		0.0599	0.0599	0.0599		0.0235	0.0235	0.0235
6	4D Other	0		5.6281	5.6281	0.0000		7.8771	7.8771	0.0000		3.3290	3.3290	0.0000
7	4D Total	0		5.6412	5.6412	0.0000		7.9370	7.9370	0.0000		3.3525	3.3525	0.0000
8	5D 12378	0.5		0.2493	0.2493	0.1246		0.3594	0.3594	0.1797		0.1294	0.1294	0.0647
9	5D Other	0		10.2460	10.2460	0.0000		8.1018	8.1018	0.0000		3.3995	3.3995	0.0000
10	5D Total	0		10.4953	10.4953	0.0000		8.4612	8.4612	0.0000		3.5289	3.5289	0.0000
11	6D 123478	0.1		0.3214	0.3214	0.0321		0.5241	0.5241	0.0524		0.1706	0.1706	0.0171
12	6D 123678	0.1		0.7216	0.7216	0.0722		1.0483	1.0483	0.1048		0.3823	0.3823	0.0382
13	6D 123789	0.1		0.7216	0.7216	0.0722		1.1232	1.1232	0.1123		0.3647	0.3647	0.0365
14	6D Other	0		11.7482	11.7482	0.0000		17.7460	17.7460	0.0000		6.8462	6.8462	0.0000
15	6D Total	0		13.5127	13.5127	0.0000		20.4416	20.4416	0.0000		7.7637	7.7637	0.0000
16	7D 1234678	0.01		3.3454	3.3454	0.0335		5.3912	5.3912	0.0539		1.9409	1.9409	0.0194
17	7D Other	0		4.7229	4.7229	0.0000		7.4878	7.4878	0.0000		2.4114	2.4114	0.0000
18	7D Total	0		8.0682	8.0682	0.0000		12.8790	12.8790	0.0000		4.3524	4.3524	0.0000
19	8D	0.001		3.0830	3.0830	0.0031		5.0168	5.0168	0.0050		1.9997	1.9997	0.0020
20	4F 2378	0.1		0.2821	0.2821	0.0282		0.3894	0.3894	0.0389		0.2117	0.2117	0.0212
21	4F Other	0		9.6885	9.6885	0.0000		14.4364	14.4364	0.0000		7.1990	7.1990	0.0000
22	4F Total	0		9.9705	9.9705	0.0000		14.8258	14.8258	0.0000		7.4108	7.4108	0.0000
23	5F 12378	0.05		0.4001	0.4001	0.0200	2	0.5616	0.5616	0.0281		0.2411	0.2411	0.0121
24	5F 23478	0.5		1.1807	1.1807	0.5904		1.4227	1.4227	0.7113		0.7646	0.7646	0.3823
25	5F Other	0		10.7511	10.7511	0.0000		13.4406	13.4406	0.0000		7.4637	7.4637	0.0000
26	5F Total	0		12.3319	12.3319	0.0000		15.4248	15.4248	0.0000		8.4695	8.4695	0.0000
27	6F 123478	0.1		1.8367	1.8367	0.1837		2.4710	2.4710	0.2471		1.2939	1.2939	0.1294
28	6F 123678	0.1		0.7216	0.7216	0.0722		1.1232	1.1232	0.1123		0.4941	0.4941	0.0494
29	6F 123789	0.1		0.0394	0.0394	0.0039		0.0449	0.0449	0.0045		0.0412	0.0412	0.0041
30	6F 234678	0.1		1.4431	1.4431	0.1443		2.0966	2.0966	0.2097		1.2351	1.2351	0.1235
31	6F Other	0		4.4867	4.4867	0.0000		7.6675	7.6675	0.0000		3.8171	3.8171	0.0000
32	6F Total	0		8.5274	8.5274	0.0000		13.4031	13.4031	0.0000		6.8814	6.8814	0.0000
33	7F 1234678	0.01		2.2958	2.2958	0.0230		3.3695	3.3695	0.0337		1.8233	1.8233	0.0182
34	7F 1234789	0.01		0.2427	0.2427	0.0024		0.3444	0.3444	0.0034		0.3647	0.3647	0.0036
35	7F Other	0		0.9380	0.9380	0.0000		2.4260	2.4260	0.0000		1.7527	1.7527	0.0000
36	7F Total	0		3.4766	3.4766	0.0000		6.1400	6.1400	0.0000		3.9407	3.9407	0.0000
37	8F	0.001		1.3119	1.3119	0.0013		1.4227	1.4227	0.0014		1.7057	1.7057	0.0017
38	Total PCDD/PCDF			76.4187	76.4187			105.9520	105.9520			49.4052	49.4052	
39	TEQ		0.0	1.4201		1.4201	0.0	1.9586		1.9586	0.0	0.9469		0.9469

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	327C5													
2														
3	ng/dscm	I-TEF		Total	Run 1 Total	TEQ		Total	Run 2 Total	TEQ		Total	Run 3 Total	TEQ
4		Wt Fact		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND
5	4D 2378	1	1	0.0185	0.0093	0.0093	1	0.0187	0.0094	0.0094		0.0179	0.0179	0.0179
6	4D Other	0		3.5036	3.5036	0.0000		3.6041	3.6041	0.0000		2.1854	2.1854	0.0000
7	4D Total	0		3.5221	3.5221	0.0000		3.6229	3.6229	0.0000		2.2032	2.2032	0.0000
8	5D 12378	0.5	1	0.1607	0.0803	0.0402		0.1999	0.1999	0.0999		0.1072	0.1072	0.0536
9	5D Other	0		6.4510	6.4510	0.0000		3.9227	3.9227	0.0000		2.0365	2.0365	0.0000
10	5D Total	0		6.6117	6.6117	0.0000		4.1226	4.1226	0.0000		2.1437	2.1437	0.0000
11	6D 123478	0.1		0.1730	0.1730	0.0173		0.2061	0.2061	0.0206		0.1012	0.1012	0.0101
12	6D 123678	0.1		0.3955	0.3955	0.0395		0.4123	0.4123	0.0412		0.2441	0.2441	0.0244
13	6D 123789	0.1		0.4511	0.4511	0.0451		0.5184	0.5184	0.0518		0.2739	0.2739	0.0274
14	6D Other	0		5.7157	5.7157	0.0000		6.3588	6.3588	0.0000		3.6681	3.6681	0.0000
15	6D Total	0		6.7353	6.7353	0.0000		7.4956	7.4956	0.0000		4.2874	4.2874	0.0000
16	7D 1234678	0.01		1.7919	1.7919	0.0179		1.8114	1.8114	0.0181		0.9527	0.9527	0.0095
17	7D Other	0		2.4099	2.4099	0.0000		2.4361	2.4361	0.0000		1.3696	1.3696	0.0000
18	7D Total	0		4.2018	4.2018	0.0000		4.2475	4.2475	0.0000		2.3223	2.3223	0.0000
19	8D	0.001		1.5448	1.5448	0.0015		1.6240	1.6240	0.0016		0.7741	0.7741	0.0008
20	4F 2378	0.1		0.2286	0.2286	0.0229		0.1936	0.1936	0.0194		0.1429	0.1429	0.0143
21	4F Other	0		8.3604	8.3604	0.0000		8.0515	8.0515	0.0000		5.1567	5.1567	0.0000
22	4F Total	0		8.5890	8.5890	0.0000		8.2451	8.2451	0.0000		5.2996	5.2996	0.0000
23	5F 12378	0.05		0.3028	0.3028	0.0151		0.3186	0.3186	0.0159		0.1727	0.1727	0.0086
24	5F 23478	0.5		0.8651	0.8651	0.4325		0.7496	0.7496	0.3748		0.4942	0.4942	0.2471
25	5F Other	0		8.7188	8.7188	0.0000		8.2389	8.2389	0.0000		4.7518	4.7518	0.0000
26	5F Total	0		9.8866	9.8866	0.0000		9.3070	9.3070	0.0000		5.4187	5.4187	0.0000
27	6F 123478	0.1		0.9887	0.9887	0.0989		0.9369	0.9369	0.0937		0.5955	0.5955	0.0595
28	6F 123678	0.1		0.3707	0.3707	0.0371		0.3873	0.3873	0.0387		0.2620	0.2620	0.0262
29	6F 123789	0.1		0.0494	0.0494	0.0049	1	0.0437	0.0219	0.0022		0.0238	0.0238	0.0024
30	6F 234678	0.1		1.0505	1.0505	0.1050		0.8745	0.8745	0.0874		0.5955	0.5955	0.0595
31	6F Other	0		3.1019	3.1019	0.0000		3.0045	3.0045	0.0000		1.9769	1.9769	0.0000
32	6F Total	0		5.5612	5.5612	0.0000		5.2469	5.2469	0.0000		3.4537	3.4537	0.0000
33	7F 1234678	0.01		1.1740	1.1740	0.0117		1.0619	1.0619	0.0106		0.7146	0.7146	0.0071
34	7F 1234789	0.01		0.2039	0.2039	0.0020		0.1499	0.1499	0.0015		0.0834	0.0834	0.0008
35	7F Other	0		1.2791	1.2791	0.0000		0.5996	0.5996	0.0000		0.6312	0.6312	0.0000
36	7F Total	0		2.6570	2.6570	0.0000		1.8114	1.8114	0.0000		1.4291	1.4291	0.0000
37	8F	0.001		0.8033	0.8033	0.0008		0.5497	0.5497	0.0005		0.3156	0.3156	0.0003
38	Total PCDD/PCDF			50.1128	50.1128			46.2727	46.2727			27.6475	27.6475	
39	TEQ		10.4	0.9513		0.9019	2.6	0.8991		0.8875	0.0	0.5697		0.5697