

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	490
4	EPA ID No.	ALD001221902
5	Facility Name	Ciba Specialty Chemicals Corporation
6	Facility Location	
7	City	McINTOSH
8	State	AL
9	Unit ID Name/No.	HW INCINERATOR NO. 2
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	SS/VS/PBS/VS
18	APCS General Class	HEWS, LEWS, HEWS
19	APCS Characteristics	Spray saturator, venturi scrubber, packed bed scrubber, venturi scrubber. Ring-jet venturi scrubbers, heat exchanger used to sub-cool scrubber solution
20	Hazardous Wastes	Liq, sludge
21	Haz Waste Description	
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	3.0
26	Height (ft)	125.0
27	Gas Velocity (ft/sec)	75.0
28	Gas Temperature (°F)	175.0
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	490C1	
4		
5	Report Name/Date	Hazardous Waste Incinerator No. 2, Trial Burn Report, Ciba-Geigy Corp, McIntosh, Alabama, Volume I of V, June 1994
6	Report Prepare	Ciba
7	Testing Firm	METCO
8	Cond Descr	Trial burn, HIGH KILN EXIT TEMPERATURE, METALS SPIKING
9	Testing Dates	March 16-18, 1994
10	Cond Dates	Mar-94
11		
12	490C2	
13		
14	Report Name/Date	Hazardous Waste Incinerator No. 2, Trial Burn Report, Ciba-Geigy Corp, McIntosh, Alabama, Volume I of V, June 1994
15	Report Prepare	Ciba
16	Testing Firm	METCO
17	Cond Descr	Trial burn, LOW KILN EXIT TEMPERATURE, DRE
18	Testing Dates	March 17, 1994
19	Cond Dates	Mar-94
20		
21	490C10	
22		
23	Report Name/Date	Hazardous Waste Incinerator No. 2, Trial Burn Report of Results, Ciba Specialty Chemicals Corporation, McIntosh, Alabama, July 2000
24	Report Prepare	Ciba
25	Testing Firm	DEECO
26	Cond Descr	Trial burn, POHC DRE, low temp, max feed and gas velocity
27	Testing Dates	April 8, 2000
28	Cond Dates	Apr-00
29		
30	490C11	
31		
32	Report Name/Date	Hazardous Waste Incinerator No. 2, Trial Burn Report of Results, Ciba Specialty Chemicals Corporation, McIntosh, Alabama, July 2000
33	Report Prepare	Ciba
34	Testing Firm	DEECO
35	Cond Descr	Trial burn, worst case for metals, PM, chlorine (max temp, max feedrates)
36	Testing Dates	April 7-8, 2000
37	Cond Dates	Apr-00
38		
39	490C12	
40		
41	Report Name/Date	Hazardous Waste Incinerator No. 2, Trial Burn Report of Results, Ciba Specialty Chemicals Corporation, McIntosh, Alabama, July 2000
42	Report Prepare	Ciba
43	Testing Firm	DEECO
44	Cond Descr	Reasonable worst case, low temp PIC risk burn
45	Testing Dates	April 6, 2000
46	Cond Dates	Apr-00

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 1											
2												
3		Comments	Units	7% O2								
4												
5	490C10					R1		R2		R3		Cond Avg
6												
7	PM	E1	gr/dscf	y		0.0114		0.0109		0.0131		0.0118
8	HC (RA)	E1	ppmv	y		0.9		0.4		0.8		0.7
9	CO (MHRA)	E1	ppmv	y		4.4		0		0		1.5
10	HCl		lb/hr			0.394		0.385		0.389		
11	Cl2		lb/hr			0.078		0.064		0.067		
12	HCl	E1	ppmv	y		4.8		4.7		4.6		4.7
13	Cl2	E1	ppmv	y		0.5		0.4		0.4		0.4
14	Total Chlorine	E1	ppmv	y		5.7		5.4		5.4		5.5
15												
16	POHC DRE	Carbon Tetrachloride										
17	POHC Feedrate		lb/hr			209		209		211		
18	POHC Emissions		lb/hr		nd	1.41E-03	nd	1.40E-03	nd	1.50E-03		
19	POHC DRE		%		>	99.99932	>	99.99933	>	99.99929		
20												
21	POHC DRE	Toluene										
22	POHC Feedrate		lb/hr			1409		1409		1407		
23	POHC Emissions		lb/hr		nd	1.41E-03	nd	1.40E-03	nd	1.50E-03		
24	POHC DRE		%			99.9999		99.9999		99.99989		
25												
26	POHC DRE	Chlorobenzene										
27	POHC Feedrate		lb/hr			204		204		204		
28	POHC Emissions		lb/hr		nd	1.41E-03	nd	1.40E-03	nd	1.50E-03		
29	POHC DRE		%			99.99931		99.99931		99.99927		
30												
31	Sampling Train	PM, HCl	E1									
32	Stack Gas Flowrate		dscfm			16200		16200		17300		16566.7
33	O2		%			8.4		8.4		9		8.6
34	Moisture		%			41.4		38.6		38.6		39.5
35	Temperature		°F									
36												
37	490C11					R1		R2		R3		Cond Avg
38												
39	PM	E1	gr/dscf	y		0.0085		0.0082		0.0089		0.0085
40	CO (MHRA)	E1	ppmv	y		0		0		0		0.0
41	HCl		lb/hr			0.368		0.391		0.397		
42	Cl2		lb/hr			0.064		0.07		0.069		
43	HCl	E1	ppmv	y		4.4		4.8		4.9		4.7
44	Cl2	E1	ppmv	y		0.4		0.4		0.4		0.4
45	Total Chlorine	E1	ppmv	y		5.2		5.7		5.7		5.5
46												
47	Sampling Train	PM, HCl	E1									
48	Stack Gas Flowrate		dscfm			14400		14500		14800		14566.7
49	O2		%			6.7		7.1		7.4		7.1
50	Moisture		%			42.7		43.2		41.6		42.5
51	Temperature		°F									
52												
53	Aluminum	E1	ug/dscm	y		51.5		51.5		45.1		49.4
54	Antimony	E1	ug/dscm	y		4.3		5.9		6.1		5.4
55	Arsenic	E1	ug/dscm	y		20.3		23.7		25.5		23.2
56	Barium	E1	ug/dscm	y		13.0		13.5		13.6		13.3
57	Beryllium	E1	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3	100	0.3
58	Cadmium	E1	ug/dscm	y		12.4		14.3		15.3		14.0
59	Chromium	E1	ug/dscm	y		21.3		24.1		29.0		24.8
60	Copper	E1	ug/dscm	y		40.5		14.8		7.3		20.9
61	Iron	E1	ug/dscm	y		15.8		20.9		21.8		19.5
62	Lead	E1	ug/dscm	y		102.6		128.1		118.0		116.2
63	Mercury	E1	ug/dscm	y	nd	3.7		4.1		3.8	32	3.9
64	Nickel	E1	ug/dscm	y		27.8		32.7		35.5		32.0
65	Selenium	E1	ug/dscm	y		1.5		1.4		1.5		1.5
66	Silver	E1	ug/dscm	y	nd	1.3	nd	1.3	nd	1.4	100	1.3
67	Thallium	E1	ug/dscm	y	nd	1.3	nd	1.3	nd	1.4	100	1.3
68	Zinc	E1	ug/dscm	y		67.7		55.7		48.2		57.2
69	Chromium (Hex)	E1	ug/dscm	y		3.3		6.1		8.1		5.8
70	SVM	E1	ug/dscm	y		115.0		142.4		133.3		130.2
71	LVM	E1	ug/dscm	y		41.9		48.2		54.8		48.3

	B	C	D	E	F	G	H	I	J	K	L	M
72												
73	Sampling Train	metals	E1									
74	Stack Gas Flowrate		dscfm			15100		15600		15800		15500.0
75	O2		%			6.7		7.1		7.4		7.1
76	Moisture		%			41.7		42.2		41.6		41.8
77	Temperature		°F									
78												
79	490C12					R1		R2		R3		Cond Avg
80												
81	PM	E1	gr/dscf	y		0.0045		0.0045		0.0054		0.0048
82	HC (RA)	E1	ppmv	y		2		1.2		0.7		1.3
83	CO (MHRA)	E1	ppmv	y		0		0		0		0.0
84	HCl		lb/hr			0.379		0.386		0.381		
85	Cl2		lb/hr			0.112		0.094		0.017		
86	HCl	E1	ppmv	y		4.7		4.7		4.7		4.7
87	Cl2	E1	ppmv	y		0.7		0.6		0.1		0.5
88	Total Chlorine	E1	ppmv	y		6.1		5.8		5.0		5.6
89												
90	Sampling Train	PM, HCl	E1									
91	Stack Gas Flowrate		dscfm			15100		15500		14800		15133.3
92	O2		%			7.9		7.9		7.6		7.8
93	Moisture		%			38.5		38.6		40.4		39.2
94	Temperature		°F									

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Stack Gas Emissions 2													
2														
3														
4	490C1					R1	R2	R3		R4				Cond Avg
5														
6	PM	E1	gr/dscf	y		0.0125	0.0116	0.0110		0.0103				0.0114
7	CO (RA)	E1	ppmv	y		0.0	0.0	0.0		0				0.0
8														
9	HCl	E1	ppmv	y		0.1	0.2	0.1		0.1				0.1
10	Cl2	E1	ppmv	y		0.1	0.0	0.0		0.0				0.0
11	Total Chlorine	E1	ppmv	y		0.2	0.2	0.1		0.1				0.2
12														
13	Antimony	E2	ug/dscm	y			nd	2.5 nd		2.5 nd		2.5	100	2.5
14	Arsenic	E2	ug/dscm	y				38.9		35.4		26.8		33.7
15	Barium	E2	ug/dscm	y				3.7		3.7		3.6		3.6
16	Beryllium	E2	ug/dscm	y				0.1		0.1		0.0		0.1
17	Cadmium	E2	ug/dscm	y				13.7		13.9		23.9		17.2
18	Chromium	E2	ug/dscm	y				5.5		5.2		4.3		5.0
19	Lead	E2	ug/dscm	y				19.1		21.1		11.0		17.1
20	Mercury	E2	ug/dscm	y				30.3		23.4		29.4		27.7
21	Nickel	E2	ug/dscm	y				1.3 nd		0.7		0.9		1.0
22	Selenium	E2	ug/dscm	y			nd	4.7 nd		4.6 nd		5.0	100	4.8
23	Silver	E2	ug/dscm	y			nd	0.2 nd		0.2 nd		0.2	100	0.2
24	Thallium	E2	ug/dscm	y				0.2		0.2 nd		0.1		0.2
25	SVM	E2	ug/dscm	y				32.9		35.0		34.9		34.2
26	LVM	E2	ug/dscm	y				44.5		40.7		31.2		38.8
27														
28	Sampling Train	Particulate	E1											
29	Stack Gas Flowrate		dscfm			17888.0		17922.0		17962.0		16814.0		
30	O2		%			8.3		8.4		7.7		7.1		
31	Moisture		%			21.4		21.5		22.1		26.4		
32	Temperature		°F			157.0		159.0		160.0		168.0		
33														
34	Sampling Train	Metals	E2											
35	Stack Gas Flowrate		dscfm					18503.0		17931.0		17010.0		
36	O2		%					8.4		7.7		7.1		
37	Moisture		%					21.7		22.2		25.7		
38	Temperature		°F											
39														
40	490C2					R1	R2	R3		R4				Cond Avg
41														
42	PM	E1	gr/dscf	y		0.0097	0.0090	0.0087						0.0091
43	CO (RA)	E1	ppmv	y		0.0	0.0	0.0						0.0
44														
45	HCl	E1	ppmv	y		0.2	0.2	0.1						0.2
46	Cl2	E1	ppmv	y		0.0	0.0	0.1						0.0
47	Total Chlorine	E1	ppmv	y		0.3	0.3	0.2						0.3
48														
49	Sampling Train	Particulate	E1											
50	Stack Gas Flowrate		dscfm			17742.0		17038.0		16863.0				
51	O2		%			7.3		6.7		7.3				
52	Moisture		%			24.5		25.5		26.0				
53	Temperature		°F			166.0		166.0		171.0				
54														
55	Carbon Tetrachloride	DRE	%			99.99998		99.99999		99.99999				
56	Chlorobenzene	DRE	%			99.99999		99.99999		99.99999				
57	Toluene	DRE	%			99.99994		99.99995		99.99992				

	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	AD						
1	Feedstream																																		
2																																			
3																																			
4																																			
5	490C10		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3				Cond Avg						
6																																			
7	Feedstream Description		Kiln liquid HW		Kiln liquid HW		Kiln liquid HW		SCC liquid waste		SCC liquid waste		SCC liquid waste		Sludge HW		Sludge HW		Sludge HW		Total		Total		Total		Total		Total						
8	Feed Class 2																				Total		Total		Total		Total		Total						
9	Feed Rate	lb/hr	2160		2160		2130		1980		1980		1980		8820		9000		8820		12960		13140		12930		13010								
10	Heating Value	Btu/lb																																	
11	Chlorine	lb/hr																			237		227		234										
12	Ash	lb/hr																			187		190		176										
13																																			
14	Stack Gas Flowrate	dscfm																			16200		16200		17300										
15	Oxygen	%																			8.4		8.4		9										
16																																			
17	Thermal Feedrate	MMBtu/hr																																	
18	Estimated Firing Rate	MMBtu/hr																																	
19																																			
20	<i>Feedrate MTEC Calculations</i>																																		
21	Chlorine	ug/dscm																			4346193		4162809		4219245		4242749								
22	Ash	mg/dscm																			3429		3484		3173		3362								
23																																			
24																																			
25	490C11		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3				Cond Avg						
26																																			
27	Feedstream Description		Kiln liquid HW		Kiln liquid HW		Kiln liquid HW		SCC liquid waste		SCC liquid waste		SCC liquid waste		Sludge HW		Sludge HW		Sludge HW		Total		Total		Total		Total								
28	Feed Class 2																				Total		Total		Total		Total								
29	Feed Rate	lb/hr	2160		2160		2130		1899		1929		1929		8733		8673		8807		12792		12762		12866		12806.67								
30	Heating Value	Btu/lb																																	
31	Chlorine	lb/hr																			231		231		229										
32	Ash	lb/hr																			466		465		450										
33	Aluminum	g/hr																			832		739		650										
34	Arsenic	g/hr																			40		39		39										
35	Barium	g/hr																			503		494		485										
36	Beryllium	g/hr																			10		10		10										
37	Cadmium	g/hr																			20		20		20										
38	Chromium	g/hr																			390		388		317										
39	Copper	g/hr																			14		13		12										
40	Iron	g/hr																			6899		6064		5481										
41	Lead	g/hr																			154		153		153										
42	Mercury	g/hr																			0.15		0.09		0.08										
43	Nickel	g/hr																			170		167		166										
44	Zinc	g/hr																			151		133		122										
45																																			
46	Stack Gas Flowrate	dscfm																			14400		14500		14800										
47	Oxygen	%																			6.7		7.1		7.4										
48																																			
49	Thermal Feedrate	MMBtu/hr																																	
50	Estimated Firing Rate	MMBtu/hr																																	
51																																			
52	<i>Feedrate MTEC Calculations</i>																																		
53	Chlorine	ug/dscm																			4199133		4290179		4258739		4249350								
54	Ash	mg/dscm																			8471		8636		8369		8492								
55	Aluminum	ug/dscm																			33313		30231		26626		30057								
56	Arsenic	ug/dscm																			1602		1595		1598		1598								

	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	AD	
57	Barium		ug/dscm																				20140		20209		19867		20072	
58	Beryllium		ug/dscm																				400		409		410		406	
59	Cadmium		ug/dscm																				801		818		819		813	
60	Chromium		ug/dscm																				15616		15872		12985		14824	
61	Copper		ug/dscm																				561		532		492		528	
62	Iron		ug/dscm																				276235		248066		224517		249606	
63	Lead		ug/dscm																				6166		6259		6267		6231	
64	Mercury		ug/dscm																				6		4		3		4	
65	Nickel		ug/dscm																				6807		6832		6800		6813	
66	Zinc		ug/dscm																				6046		5441		4997		5495	
67	SVM		ug/dscm																				277035		248884		225336		250419	
68	LVM		ug/dscm																				17618		17877		14992		16829	
69																														
70																														
71	490C12				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg	
72																														
73	Feedstream Description				Kiln liquid HW		Kiln liquid HW		Kiln liquid HW		SCC liquid waste		SCC liquid waste		SCC liquid waste		Sludge HW		Sludge HW		Sludge HW		Total		Total		Total		Total	
74	Feed Class 2															Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
75	Feed Rate		lb/hr		2160		2160		2160		1140		1140		1140		8880		9000		8940		12180		12300		12240		12240	
76	Heating Value		Btu/lb																											
77	Chlorine		lb/hr																											
78	Ash		lb/hr																					224		230		211		
79																														
80	Stack Gas Flowrate		dscfm																					15100		15500		14800		
81	Oxygen		%																					7.9		7.9		7.6		
82																														
83	Thermal Feedrate		MMBtu/hr																											
84	Estimated Firing Rate		MMBtu/hr																											
85																														
86	<i>Feedrate MTEC Calculations</i>																													
87	Chlorine		ug/dscm																											
88	Ash		mg/dscm																					4239		4240		3983		4154

	B	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AV	AW	AX	AY	AZ	BA	BB	
1	Feedstream 2																								
2																									
3																									
4	490C1		R2		R3		R4		R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4
5																									
6	Feedstream Number		F4		F4		F4		F5		F5		F5		F5		F5		F5		F5		F5		F5
7	Feed Class		Spike		Spike		Spike		Total		Total		Total		Total		Total		Total		Total		Total		Total
8	Feed Class 2		Spike		Spike		Spike		Total		Total		Total		Total		Total		Total		HW		HW		HW
9	Feedstream Description								Total		Total		Total		Total		Total		Total		HW		HW		HW
10	Feedrate		0		0		0																		
11	Ash								499		387		407		410										
12	Chlorine																								
13	Antimony																								
14	Arsenic		0.132011		0.131923		0.13201																		
15	Barium																								
16	Beryllium		0.022002		0.022002		0.022																		
17	Cadmium		0.05172		0.051676		0.05172																		
18	Chromium		0.915063		0.914666		0.9092				1.0511997														
19	Lead																								
20	Mercury																								
21	Nickel																								
22	Selenium																								
23	Silver																								
24	Thallium																								
25																									
26	Gas flowrate		17922		17962		16814		17888		17922		17962		16814		17646.5								
27	Oxygen		8.4		7.7		7.1		8.3		8.4		7.7		7.1		7.875								
28																									
29	Estimated Firing Rate								72.12		71.69		75.84		74.20		73.53								
30																									
31	Feedrate MTECs																								
32																									
33	Ash								8222		6415		6377		6567		6895								
34	Chlorine		0		0		0		3740301		3762834		3415831		3635685		3638663		3740301		3762834		3415831		3635685
35	Antimony		0.0		0.0		0.0		80		1824	81	1707	80	1763	81	1765		80		1824	81	1707	80	1763
36	Arsenic		2188.3		2067.1		2114.3				2551		2422		2451		2475				363		355		336
37	Barium		0.0		0.0		0.0				5165		5078		4677		4973				5165		5078		4677
38	Beryllium		364.7		344.7		352.4				464		414		419		432				99		70		67
39	Cadmium		857.3		809.7		828.4				901		824		846		857				43		14		18
40	Chromium		15168.4		14331.9		14561.9				17425		16595		16721		16914				2257		2263		2159
41	Lead		0.0		0.0		0.0				976		619		428		674				976		619		428
42	Mercury		0.0		0.0		0.0		98		32	97		26		28	66		98		32	97		26	0
43	Nickel		0.0		0.0		0.0				743		721		703		722				743		721		703
44	Selenium		0.0		0.0		0.0		80		1824	81	1707	80	1763	81	1765		80		1824	81	1707	80	1763
45	Silver		0.0		0.0		0.0		80		912	81	854	80	882	81	882		80		912	81	854	80	882
46	Thallium		0.0		0.0		0.0				3661		4093		3697		3817				3661		4093		3697
47	SVM		857.3		809.7		828.4				1876.4		1442.9		1274.5		1531				1019		633		446
48	LVM		17721.4		16743.7		17028.7				20439.6		19432.0		19590.9		19821				2718		2688		2562
49																									
50																									
51	490C2		R2		R3		R4		R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4
52																									
53	Feedstream Number		F4		F4		F4		F5		F5		F5		F5		F5		F5		F5		F5		F5
54	Feed Class		Spike		Spike		Spike		Total		Total		Total		Total		Total		Total		Total		Total		Total
55	Feed Class 2		Spike		Spike		Spike		Total		Total		Total		Total		Total		Total		HW		HW		HW
56	Feedstream Description								Total		Total		Total		Total		Total		Total		HW		HW		HW
57	Feedrate																								
58	Ash								515		404		405												
59	Chlorine																								
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	AB	AC	AD	
61	Gas flowrate				17742		17038		16863				17742		17038		16863				17742		17038		16863					17742
62	Oxygen				7.3		6.7		7.3				7.3		6.7		7.3				7.3		6.7		7.3				7.3	
63																														
64	Estimated Firing Rate		MMBtu/hr																											
65																														
66	Feedrate MTECs																													
67	Ash		mg/dscm																											
68	Chlorine		ug/dscm		258721		190508		200915												3264817.6		3241708.85		3856272.8					

	B	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AI	AV	AW	AX	AY	AZ	BA	BB
61	Gas flowrate		17038		16863				17742		17038		16863				17214.33								
62	Oxygen		6.7		7.3				7.3		6.7		7.3				7.1								
63																									
64	Estimated Firing Rate								77.16		77.35		73.34				75.96								
65																									
66	Feedrate MTECs																								
67	Ash								7931		6207		6562				6900								
68	Chlorine								3523539		3432216.9		4057187.9				3670981		3523539		3432217		4057188		

	C	D	E	F	G	H
1	Process Information 2					
2						
3	490C1		R1	R2	R3	R4
4						
5	Kiln Temperature	F	1700	1702	1696	1700
6	Afterburner Temperature	F	1800	1800	1798	1801
7	PBS Temperature	F	142	142	143	148
8	PBS Pressure Drop	in H2O	0.83	0.87	0.84	0.9
9	PBS pH		7.5	6.5	6.8	6.5
10	Initial Venturi Ring Jet Scrubber Pressure Drop	in H2O	14	14	14	14
11	Initial Venturi Ring Jet Scrubber Water Flowrate	gpm	290	286	277	290
12	Initial Venturi Ring Jet Scrubber pH		5.5	4.9	5.4	5.1
13	Final Venturi Ring Jet Scrubber Pressure Drop	in H2O	22	22	22	22
14	Final Venturi Ring Jet Scrubber Water Flowrate	gpm	274	267	265	262
15	Final Venturi Ring Jet Scrubber pH		7.6	7.6	7.5	7.2
16						
17	490C2		R1	R2	R3	
18						
19	Kiln Temperature	F	1590	1591	1583	
20	Afterburner Temperature	F	1800	1800	1800	
21	PBS Temperature	F	146	148	149	
22	PBS Pressure Drop	in H2O	0.96	0.93	0.91	
23	PBS pH		7.7	7.2	6.5	
24	Initial Venturi Ring Jet Scrubber Pressure Drop	in H2O	14	14	14	
25	Initial Venturi Ring Jet Scrubber Water Flowrate	gpm	271	270	267	
26	Initial Venturi Ring Jet Scrubber pH		5.9	5.5	5.3	
27	Final Venturi Ring Jet Scrubber Pressure Drop	in H2O	22	22	22	
28	Final Venturi Ring Jet Scrubber Water Flowrate	gpm	255	258	258	
29	Final Venturi Ring Jet Scrubber pH		7.5	7.5	7.4	

	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:		Ciba, Mc Intosh, AL															
4	Condition ID:		490C12															
5	Condition/Test Date:		Reasonable worst case low temperature risk burn, April 6, 2000															
6																		
7	I-TEF		Run 1				Run 2				Run 3							
8	Wght Fact		Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	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	0.0059	0.0059	0.0059	0.0059	0.0113	0.0113	0.0113	0.0113	nd	0.0121	0.0121	0.0061	0.0061			
12	Total TCDD	0	0.078	0.0000	0.0780	0.0000	0.06	0.0000	0.0600	0.0000	nd	0.041	0.0000	0.0205	0.0000			
13	1,2,3,7,8-PCDD	0.5	0.0085	0.0043	0.0085	0.0043	0.02	0.0100	0.0200	0.0100		0.0113	0.0057	0.0113	0.0057			
14	Total PCDD	0	0.081	0.0000	0.0810	0.0000	0.146	0.0000	0.1460	0.0000		0.0243	0.0000	0.0243	0.0000			
15	1,2,3,4,7,8-HxCDD	0.1	0.0051	0.0005	0.0051	0.0005	0.0144	0.0014	0.0144	0.0014		0.0068	0.0007	0.0068	0.0007			
16	1,2,3,6,7,8-HxCDD	0.1	0.0088	0.0009	0.0088	0.0009	0.0201	0.0020	0.0201	0.0020		0.0073	0.0007	0.0073	0.0007			
17	1,2,3,7,8,9-HxCDD	0.1	0.0116	0.0012	0.0116	0.0012	0.033	0.0033	0.0330	0.0033		0.0083	0.0008	0.0083	0.0008			
18	Total HxCDD	0	0.097	0.0000	0.0970	0.0000	0.272	0.0000	0.2720	0.0000		0.0406	0.0000	0.0406	0.0000			
19	1,2,3,4,6,7,8-HpCDD	0.01	0.07	0.0007	0.0700	0.0007	0.233	0.0023	0.2330	0.0023		0.0335	0.0003	0.0335	0.0003			
20	Total HpCDD	0	0.129	0.0000	0.1290	0.0000	0.481	0.0000	0.4810	0.0000		0.061	0.0000	0.0610	0.0000			
21	OCDD	0.001	0.247	0.0002	0.2470	0.0002	0.87	0.0009	0.8700	0.0009		0.093	0.0001	0.0930	0.0001			
22	2,3,7,8-TCDF	0.1	0.0234	0.0023	0.0234	0.0023	0.033	0.0033	0.0330	0.0033		0.022	0.0022	0.0220	0.0022			
23	Total TCDF	0	0.71	0.0000	0.7100	0.0000	0.87	0.0000	0.8700	0.0000		0.265	0.0000	0.2650	0.0000			
24	1,2,3,7,8-PCDF	0.05	0.04	0.0020	0.0400	0.0020	0.07	0.0035	0.0700	0.0035		0.0123	0.0006	0.0123	0.0006			
25	2,3,4,7,8-PCDF	0.5	0.031	0.0155	0.0310	0.0155	0.056	0.0280	0.0560	0.0280		0.0116	0.0058	0.0116	0.0058			
26	Total PCDF	0	0.41	0.0000	0.4100	0.0000	0.64	0.0000	0.6400	0.0000		0.132	0.0000	0.1320	0.0000			
27	1,2,3,4,7,8-HxCDF	0.1	0.053	0.0053	0.0530	0.0053	0.107	0.0107	0.1070	0.0107		0.0176	0.0018	0.0176	0.0018			
28	1,2,3,6,7,8-HxCDF	0.1	0.034	0.0034	0.0340	0.0034	0.066	0.0066	0.0660	0.0066		0.0135	0.0014	0.0135	0.0014			
29	2,3,4,6,7,8-HxCDF	0.1	0.0199	0.0020	0.0199	0.0020	0.058	0.0058	0.0580	0.0058		0.0092	0.0009	0.0092	0.0009			
30	1,2,3,7,8,9-HxCDF	0.1	0.0021	0.0002	0.0021	0.0002	0.0101	0.0010	0.0101	0.0010	nd	0.0063	0.0006	0.0063	0.0006			
31	Total HxCDF	0	0.25	0.0000	0.2500	0.0000	0.51	0.0000	0.5100	0.0000		0.072	0.0000	0.0720	0.0000			
32	1,2,3,4,6,7,8-HpCDF	0.01	0.09	0.0009	0.0900	0.0009	0.252	0.0025	0.2520	0.0025		0.033	0.0003	0.0330	0.0003			
33	1,2,3,4,7,8,9-HpCDF	0.01	0.0091	0.0001	0.0091	0.0001	0.0284	0.0003	0.0284	0.0003	nd	0.0084	0.0001	0.0084	0.0001			
34	Total HpCDF	0	0.126	0.0000	0.1260	0.0000	0.37	0.0000	0.3700	0.0000		0.037	0.0000	0.0370	0.0000			
35	OCDF	0.001	0.038	0.0000	0.0380	0.0000	0.105	0.0001	0.1050	0.0001		0.0086	0.0000	0.0086	0.0000			
36																		
37	Gas sample volume (dscf)			212.762	212.762	212.762		209.008	209.008	209.008		201.032	201.032	201.032				
38	O2 (%)			7.9	7.9	7.9		7.9	7.9	7.9		7.6	7.6	7.6				
39																		
40	PCDD/PCDF (ng in sample)			0.045	2.2	0.045		0.093	4.3	0.093		0.034	0.754	0.028				
41	PCDD/PCDF (ng/dscm @ 7% O2)			0	0.008	0.384	0.008	0	0.017	0.781	0.017	38	0.006	0.138	0.005			
42																		
43	TEQ Cond Avg		0.0100															
44	Total Cond Avg		0.4347															