

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase I ID No.	705
4	EPA ID No.	ALD001221902
5	Facility Name	CIBA-GEIGY CORPORATION
6	Facility Location	
7	City	McINTOSH
8	State	AL
9	Unit ID Name/No.	MULTIPURPOSE INCINER
10	Other Sister Facilities	None
11	Combustor Class	ONSITE INCINERATOR
12	Combustor Type	Rotary kiln
13	Combustor Characteristics	Vulcan Iron Works Kiln, 10' diameter, 45' length
14	Capacity (MMBtu/hr)	
15	Soot Blowing	
16	APCS	QT/VS/PT/WESP
17	APCS Characteristics	Quench, venturi scrubber, packed tower, wet electrostatic precipitator (Fluid Ionics, single stage)
18	Hazardous Wastes	HW SLD/LIQ
19	Haz Waste Description	
20	Supplemental Fuel	NATURAL GAS
21		
22	Stack Characteristics	
23	Diameter (ft)	4.5
24	Height (ft)	75.0
25	Gas Velocity (ft/sec)	11.6
26	Gas Temperature (°F)	162.8
27		
28	Permitting Status	
29	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Condition Description</b>	
2		
3	<b>705C1</b>	
4		
5	Report Name/Date	Ciba Giegy McIntosh Alabama Trial Burn on Multipurpose Rotary Kiln Incinerator, March 1990
6	Report Prepare	BCM Engineers Inc.
7	Testing Firm	BCM Engineers Inc.
8	Cond Descr	Trial burn, liquid waste only
9	Test Dates	March 22-24, 1990
10	Cond Date	03/22/90
11		
12	<b>705C2</b>	
13		
14	Report Name/Date	Ciba Giegy McIntosh Alabama Trial Burn on Multipurpose Rotary Kiln Incinerator, March 1990
15	Report Prepare	BCM Engineers Inc.
16	Testing Firm	BCM Engineers Inc.
17	Cond Descr	Trial burn, liquid waste and non-hazardous solid waste
18	Test Dates	March 22-24, 1990
19	Cond Date	03/22/90

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions 2</b>											
2												
3	<b>705C1</b>					R1		R2		R3		Cond Avg
4												
5	PM		gr/dscf	y		0.1691		0.0300		0.0200		0.0250
6	CO		ppmv	y		5.5		7.6		2.8		
7	HCl		ppmv	y		8.5		33.5		17.0		19.7
8	Antimony		ug/dscm	y		16.3		12.8		7.3		
9	Arsenic		ug/dscm	y	nd	8.2	nd	10.3	nd	7.7		
10	Barium		ug/dscm	y	nd	8.2	nd	102.8	nd	77.5		
11	Beryllium		ug/dscm	y	nd	0.3	nd	0.4	nd	0.3		
12	Cadmium		ug/dscm	y		19.1		8.6		4.8		
13	Chromium		ug/dscm	y		38.6		21.9		19.4		
14	Lead		ug/dscm	y		256.3		205.8		99.4		
15	Mercury		ug/dscm	y		10.3	nd	3.1		0.7		4.7
16	Selenium		ug/dscm	y	nd	3.3	nd	4.1	nd	3.1		
17	Silver		ug/dscm	y		3.9		2.3		1.0		
18	Thallium		ug/dscm	y	nd	0.0		1.6	nd	3.1		
19	SVM		ug/dscm	y		275.4		214.4		104.2		198.0
20	LVM		ug/dscm	y		42.8		27.2		23.4		31.2
21												
22	PM run 1 is outlier											
23												
24	Sampling Train		Halogens									
25	Moisture					38.8		38.1		40.2		
26	Oxygen					12.7		13.2		12.1		
27	Stack gas flowrate					18260.0		18040.0		18080.0		
28	Temperature					165.0		160.2		160.4		
29												
30	Sampling Train		Metals									
31	Moisture					36.6		39.0		38.2		
32	Oxygen					12.7		13.2		12.1		
33	Stack gas flowrate					19850.0		18650.0		19680.0		
34	Temperature					159.5		156.8		162.3		
35												
36	Sampling Train		SVOC									
37	Moisture					39.3		41.3		37.5		
38	Oxygen					12.7		13.2		12.1		
39	Stack gas flowrate					18280.0		17580.0		19030.0		
40	Temperature					161.5		159.3		164.4		
41												
42	Chlorobenzene	DRE	%			99.9998		99.9998		99.9998		
43	Hexachloroethane	DRE	%			99.9987		99.9986		99.9977		
44	Tetrachloroethene	DRE	%			99.9989		99.9991		99.9988		
45	Toluene	DRE	%			99.9999		99.9998		99.9994		
46												
47	<b>705C2</b>					R1		R2		R3		Cond Avg
48												
49	PM		gr/dscf	y		0.0523		0.0734		0.0293		0.0517
50	CO		ppmv	y		3.6		0.1		6.9		
51	HCl		ppmv	y		13.4		11.9		9.1		
52	Antimony		ug/dscm	y		671.5		262.0		214.4		
53	Arsenic		ug/dscm	y		9.7		6.6		13.8		
54	Barium		ug/dscm	y	nd	78.9		5.5		39.8		
55	Beryllium		ug/dscm	y	nd	0.3	nd	0.3	nd	0.3		
56	Cadmium		ug/dscm	y		139.6		23.4		30.4		
57	Chromium		ug/dscm	y		20.5		17.8		15.6		
58	Lead		ug/dscm	y		174.9		628.1		214.4		
59	Mercury		ug/dscm	y		5.5		40.5		29.4		
60	Selenium		ug/dscm	y	nd	3.1	nd	2.6	nd	2.7		
61	Silver		ug/dscm	y		1.5		1.1		4.2		
62	Thallium		ug/dscm	y	nd	3.1	nd	2.6	nd	2.0		
63	SVM		ug/dscm	y		314.4		651.5		244.8		403.6
64	LVM		ug/dscm	y		30.3		24.5		29.6		28.1
65												
66	Sampling Train		Halogens									
67	Moisture					41.2		41.8		41.9		
68	Oxygen					11.2		10.6		9.6		
69	Stack gas flowrate					17500.0		18190.0		17670.0		
70	Temperature					167.5		157.3		155.4		
71												

	B	C	D	E	F	G	H	I	J	K	L	M
72	Sampling Train	Metals										
73	Moisture					42.1		38.8		40.3		
74	Oxygen					11.2		10.6		9.6		
75	Stack gas flowrate					18800.0		19340.0		19420.0		
76	Temperature					165.2		164.4		162.3		
77												
78	Sampling Train	SVOC										
79	Moisture					41.1		38.4		42.4		
80	Oxygen					11.2		10.6		9.6		
81	Stack gas flowrate					17800.0		18320.0		17550.0		
82	Temperature					168.2		163.3		161.2		
83												
84	Chlorobenzene	DRE	%			99.9996		99.9994		99.9996		
85	Hexachloroethane	DRE	%			99.9957		99.9936				
86	Tetrachloroethene	DRE	%			99.9977		99.9966		99.998		
87	Toluene	DRE	%			99.9994		99.9997		99.9998		



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	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
61	Oxygen			11.2		10.6		9.6		11.2		10.6		9.6												
62				0		0		0		32532.8		3377.11		923.5012		32533		3377		924		12278				
63	Ash			3269148		2051390		2376588		0		0		0		3269148		2051390		2376588		25665709				
64	Chlorine	mg/dscm		0		0		0		86.40		68.00		27.28		87		68		27		61				
65	Antimony	ug/dscm	1	0.19	1	0.12	1	0.16	1	43.15	1	20.17	1	13.66		43		20		14		26				
66	Arsenic	ug/dscm	1	0.10	1	0.06	1	0.08	1	655.99		322.91		278.20		657		324		279		420				
67	Barium	ug/dscm	1	0.97	1	0.61	1	0.80	1	1.73	1	3.47	1	0.55		2		3		3		2				
68	Beryllium	ug/dscm	1	0.00	1	0.00	1	0.00	1	1.73		2.02		2.73		2		2		2		2				
69	Cadmium	ug/dscm	1	0.00	1	0.00	1	0.00	1	233.06		2567.53		40.79		233		2568		41		947				
70	Chromium	ug/dscm	1	0.02	1	0.08	1	0.16	1	431.46		96.69		72.73		431		97		73		200				
71	Lead	ug/dscm	1	0.04	1	0.02	1	0.10	1	17.28	1	8.10	1	5.46		21		8		7		12				
72	Mercury	ug/dscm	1	3.87	1	0.02	1	1.62	1	17.28	1	8.10	1	5.46		17		8		5		10				
73	Selenium	ug/dscm	1	0.04	1	0.02	1	0.03	1	3.45		0.81		0.27		3		1		0		2				
74	Silver	ug/dscm	1	0.00	1	0.00	1	0.00	1	17.28	1	8.10	1	5.46		17		8		5		10				
75	Thallium	ug/dscm	1	0.04	1	0.02	1	0.03	1	433		99		75		433		99		76		203				
76	SVM	ug/dscm	1	0		0		0		278		2591		55		278		2591		55		975				
77	LVM	ug/dscm	1	0		0		0		278		2591		55		278		2591		55		975				

	C	D	E	F	G
1	<b>Process Information 2</b>				
2					
3	<b>705C1</b>				
4					
5	Kiln Temperature	F	2003	1967	1966
6	Afterburner Temperature	F	2094	2061	2010
7	WS Temperature	F	179	177	170
8	WS Pressure Drop	in H2O	23	23	23
9	WS pH		8.37	8.3	8.24
10					
11	<b>705C2</b>				
12					
13	Kiln Temperature	F	2029	1885	1853
14	Afterburner Temperature	F	2074	1948	2079
15	WS Temperature	F	170	163	173
16	WS Pressure Drop	in H2O	22.8	22.6	22.6
17	WS pH		8.42	8.13	8.45