	B	C
1	**Source Description**	
2		
3	Phase I ID No.	700
4	EPA ID No.	DED003930807
5	Facility Name	Dupont
6	Facility Location	
7	City	Wilmington
8	State	DE
9	Unit ID Name/No.	Incinerator
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Fixed hearth
14	Combustor Characteristics	Nichols Monohearth, with afterburner, 40 MM Btu/hr
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	SD/C/RJS/VS/WS
18	APCS General Class	DS,C,HEWS,LEWS
19	APCS Characteristics	Spray dryer, cyclone,reverse jet scrubber, venturi scrubber (variable throat, Andersen 2000 model WAV-152), packed bed scrubber (counter current baffle style, 3 stage, disc / donut packing) (Andersen 2000 design)
20	Hazardous Wastes	liq, solid
21	Haz Waste Description	Liquid organic Waste, metal spike, Jug A (Fuel oil #2), Jug B (Pb Spike), Newspaper, Wood Chips
22	Supplemental Fuel	oil
23		Fuel oil
24	Stack Characteristics	
25	Diameter (ft)	4.0
26	Height (ft)	0.0
27	Gas Velocity (ft/sec)	12.6
28	Gas Temperature (°F)	177.9
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**700C1**	
4		
5	Report Name/Date	Test Report for the RCRA Trial Burn on the Du Pont Experimental Station Hazardous Waste Incinerator, Wilmington, Delaware, Prepared by MRI, Projecct # 6495-M(04), August 13, 1992
6	Report Prepare	MRI
7	Testing Firm	MRI
8	Cond Descr	Trial Burn, High Metals Feed/Max Temp
9	Testing Dates	May 17-19, 1992
10	Cond Dates	May-92
11		
12	**700C2**	
13		
14	Report Name/Date	Test Report for the RCRA Trial Burn on the Du Pont Experimental Station Hazardous Waste Incinerator, Wilmington, Delaware, Prepared by MRI, Projecct # 6495-M(04), August 13, 1992
15	Report Prepare	MRI
16	Testing Firm	MRI
17	Cond Descr	Trial Burn, High Feed Rate/Min Temp
18	Testing Dates	May 20, 1992
19	Cond Dates	May-92

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Stack Gas Emissions 2**												
2													
3													
4	**700C1**					R1		R2		R3		Cond Avg	
5													
6	PM	E2	gr/dscf	y		0.0609		0.0525		0.0581		0.0572	
7	HCl	E2	ppmv	y		18.2		44.5		22.0		28.2	
8	Cl2	E2	ppmv	y		0.2		0.1		0.4		0.2	
9	Total Chlorine	E2	ppmv	y		18.6		44.7		22.8		28.7	
10													
11	Antimony	E3	ug/dscm	y	nd	34.7	nd	72.5	nd	41.0		49.4	
12	Arsenic	E3	ug/dscm	y		180.9		190.2		192.9		188.0	
13	Barium	E3	ug/dscm	y		14.5		28.3		15.7		19.5	
14	Beryllium	E3	ug/dscm	y	nd	41.2	nd	42.0	nd	57.9		47.0	
15	Cadmium	E3	ug/dscm	y		169.1		157.2		198.6		174.9	
16	Chromium	E3	ug/dscm	y		447.7		363.2		505.7		438.9	
17	Chromium (Hex)	E1	ug/dscm	y		222.4		156.0		208.6		195.7	
18	Lead	E3	ug/dscm	y		24434.0		25490.6		38000.0		29308.2	
19	Mercury	E3	ug/dscm	y	nd	4.5	nd	6.0	nd	3.7	100	4.7	
20	Nickel	E3	ug/dscm	y		32.5		20.9		33.0		28.8	
21	Silver	E3	ug/dscm	y	nd	5.1	nd	10.6	nd	4.4		6.7	
22	Thallium	E3	ug/dscm	y	nd	5.2	nd	11.6	nd	6.0		7.6	
23	LVM	E3	ug/dscm	y		669.9		595.4		756.4		673.9	
24	SVM	E3	ug/dscm	y		24603.0		25647.7		38198.6		29483.1	
25													
26	Sampling Train	Cr Hex	E1										
27	Stack Gas Flowrate		dscfm			13242.0		11977.0		12303.0			
28	O2		%			10.3		10.5		11.0			
29	Moisture		%			52.8		51.2		51.9			
30	Temperature		°F			182.0		181.0		181.0			
31													
32	Sampling Train	PM/HCl	E2										
33	Stack Gas Flowrate		dscfm			14055.0		13449.0		14084.0			
34	O2		%			10.4		10.4		11.2			
35	Moisture		%			46.5		46.2		46.0			
36	Temperature		°F			177.0		177.0		176.0			
37													
38	Sampling Train	Metals	E3										
39	Stack Gas Flowrate		dscfm			14444.0		13403.0		14221.0			
40	O2		%			10.4		10.4		11.2			
41	Moisture		%			45.8		45.4		45.3			
42	Temperature		°F			176.0		176.0		175.0			
43													
44													
45	**700C2**					R1		R2		R3		Cond Avg	
46													
47	PM	E1	gr/dscf	y		0.0334		0.0286		0.0283		0.0301	
48	HCl	E1	ppmv	y		3.7		3.4		5.2		4.1	
49	Cl2	E1	ppmv	y	nd	0.0	nd	0.0	nd	0.0		0.0	
50	Total Chlorine	E1	ppmv	y		3.8		3.5		5.2		4.2	
51													
52	Sampling Train	PM/HCl	E1										
53	Stack Gas Flowrate		dscfm			13685.0		14302.0		13961.0			
54	O2		%			11.2		11.0		11.0			
55	Moisture		%			42.7		42.4		43.1			
56	Temperature		°F			173.0		172.0		173.0			
57													
58	Carbon Tetrachloride	DRE	%			99.99908		99.99931		99.99899			
59	Chlorobenzene	DRE	%			99.99979		99.99979		99.9998			

	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
1	**Feedstream 2**																								
2																									
3																									
4	**700C1**				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				Spike		Spike		Spike		Spike		Spike		Spike		Liq HW		Liq HW		Liq HW		Spike		Spike
8	Feed Class 2																HW		HW		HW				
9	Feedstream Desc				Metal spike 1		Metal spike 1		Metal spike 1		Metal spike 2		Metal spike 2		Metal spike 2		CCl4 + oil		CCl4 + oil		CCl4 + oil		Jug B		Jug B
10	Feed Rate		lb/hr		12.8		12.4		12.9		12.8		12.5		13.8		918		930		930		10.02		11.52
11	Heating value		Btu/lb														16439		16749		16569		0		0
12	Thermal Feedrate		MMBtu/hr														15.1		15.6		15.4				
13	Ash		wt %														0.01		0.01		0.01		0		0
14	Chlorine		ppmw														131000		116000		128000		255000		255000
15	Antimony		ppmw		25.1		26.8		24.1	1	4.17		5.03	1	4.18	1	4.2	1	4.18	1	4.21		51.4		52
16	Arsenic		ppmw		3150		3090		3130		65.8		65.5		64.5	1	0.075	1	0.075	1	0.076		985		998
17	Barium		ppmw	1	0.283	1	0.273	1	0.282	1	0.028	1	0.28	1	0.281	1	0.282	1	0.28	1	0.283	1	0.28	1	0.284
18	Beryllium		ppmw		1910		1770		1950		0.303		0.263		0.214		0.227	1	0.071	1	0.071		0.248	1	0.072
19	Cadmium		ppmw		2500		2450		2480		1.27		0.984		0.943		0.467		0.376		0.425		2.01		2.04
20	Chromium		ppmw		13600		13400		13500		3.54		1.76		1.9	1	0.496	1	0.493	1	0.497		3.72		4.2
21	Lead		ppmw		3.95		3.91		3.86		39800		40600		39200		0.09		0.243	1	0.07		694000		735000
22	Mercury		ppmw	1	0.229	1	0.221	1	0.229	1	0.227	1	0.226	1	0.228	1	0.229	1	0.228	1	0.227		0.272	1	0.161
23	Nickel		ppmw		1.89		1.92		2.16	1	1.53	1	1.53	1	1.54	1	1.55	1	1.54	1	1.55		5.45		5.76
24	Silver		ppmw	1	0.675	1	0.653		0.726	1	0.668	1	0.668	1	0.671	1	0.674	1	6.67	1	0.675		0.907		1.01
25	Thallium		ppmw		20.8		23.3		20.7		48.1		49.8		49.7	1	10.4	1	10.3		10.4		759		762
26																									
27	Gas flowrate		dscfm		14444		13403		14221		14444		13403		14221		14444		13403		14221		14444		13403
28	Oxygen		%		10.4		10.4		11.2		10.4		10.4		11.2		10.4		10.4		11.2		10.4		10.4
29																									
30	Feedrate MTECs																								
31	Ash		mg/dscm		0		0		0		0		0		0		2.2443756		2.450311		2.4978879		0		0
32	Chlorine		ug/dscm		0		0		0		0		0		0		2940132		2842361		3197296		62468		77398
33	Antimony		ug/dscm		7.9		8.7		8.3	100	1.3		1.7	100	1.6	100	94.3	100	102.4	100	105.2		12.6		15.8
34	Arsenic		ug/dscm		989.5		1008.7		1081.4		20.6		21.6		23.9	100	1.7	100	1.8	100	1.9		241.3		302.9
35	Barium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.0	100	0.1	100	0.1	100	6.3	100	6.9	100	7.1	100	0.1	100	0.1
36	Beryllium		ug/dscm		600.0		577.8		673.7		0.1		0.1		0.1		5.1		1.7	100	1.8		0.1	100	0.0
37	Cadmium		ug/dscm		785.3		799.8		856.9		0.4		0.3		0.4		10.5		9.2		10.6		0.5		0.6
38	Chromium		ug/dscm		4271.9		4374.4		4664.4		1.1		0.6		0.7	100	11.1	100	12.1	100	12.4		0.9		1.3
39	Lead		ug/dscm		1.2		1.3		1.3		12474.6		13382.6		14553.6		2.0		6.0	100	1.7		170012.2		223089.0
40	Mercury		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	100	5.1	100	5.6	100	5.7		0.1	100	0.0
41	Nickel		ug/dscm		0.6		0.6		0.7	100	0.5	100	0.5	100	0.6	100	34.8	100	37.7	100	38.7		1.3		1.7
42	Silver		ug/dscm	100	0.2	100	0.2		0.3	100	0.2	100	0.2	100	0.2	100	15.1	100	163.4	100	16.9		0.2		0.3
43	Thallium		ug/dscm		6.5		7.6		7.2		15.1		16.4		18.5	100	233.4	100	252.4		259.8		185.9		231.3
44	SVM		ug/dscm		787		801		858		12475		13383		14554		13		15	14	12		170013		223090
45	LVM		ug/dscm		5861		5961		6420		22		22		25	72	18	89	16	100	16		242		304
46																									
47																									
48																									
49	**700C2**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2
50																									
51	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3		F4		F4
52	Feed Class				Liq HW		Liq HW		Liq HW		Oil		Oil		Oil		Spike		Spike		Spike		Spike		Spike
53	Feed Class 2				HW		HW		HW																
54	Feedstream Description				CCl4 + oil		CCl4 + oil		CCl4 + oil		Jug A		Jug A		Jug A		Spike CCl4		Spike CCl4		Spike CCl4		C6H5Cl		C6H5Cl
55	Feed Rate		lb/hr		720		720		720		115.2		75		64.8		50.7		52.14		52.38		50.34		51.84
56	Heating value		Btu/lb		19312		19306		19312		19326		19216		19223		0		0		0		0		0
57	Thermal Feedrate		MMBtu/hr		13.9		13.9		13.9		2.2		1.4		1.2		0.0		0.0						
58	Ash		wt %		0.02		0.01		0.01		0.01		0.01		0.01		0		0		0		0		0
59	Chlorine		ppmw		782		484		402	1	12		31	1	12		922000		922000		922000		316000		316000
60																									

	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
1																													
2																													
3																													
4		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1	
5																													
6		F4		F5		F5		F5																				F6	
7		Spike		Oil		Oil		Oil																				Solid non-HW	
8										Spike		Spike		Spike														Non-HW	
9		Jug B		Jug A		Jug A		Jug A														Wood chips						Newspaper	
10		10.02		606		642		574.8																				300	
11		0		19220		19159		19756																				7833	
12				11.6		12.3		11.4																				2.3	
13		0		0.01		0.01		0.01																				3.82	
14		255000	1	12	1	12	1	12																				62	
15		52.8																									1	4.18	1
16		1030																										0.185	1
17	1	0.281																										19.5	
18	1	0.071																									1	0.071	
19		1.96																										0.482	
20		3.51																										0.812	
21		759000																										3.26	
22	1	0.159																									1	0.228	1
23		5.41																									1	1.54	
24	1	0.671																									1	0.671	1
25		789																									1	10.3	1
26																													
27		14221		14444		13403		14221								14444		13403		14221		14444		13403		14221		14444	
28		11.2		10.4		10.4		11.2								10.4		10.4		11.2		10.4		10.4		11.2		10.4	
29																													
30																													
31		0		1.48		1.69		1.54		0		0		0		0		0		0		0		0		0		280.180222	
32		68627	100	178	100	203	100	185		62468		77398		68627		0		0		0		0		0		0		455	
33		14.2		0.0		0.0		0.0	6	21.8		26.2	6	24.1		0.0		0.0		0.0		0.0		0.0		0.0	100	30.7	100
34		277.2		0.0		0.0		0.0		1251.4		1333.2		1382.6		0.0		0.0		0.0		0.0		0.0		0.0		1.4	100
35	100	0.1		0.0		0.0		0.0	100	0.2	100	0.3	100	0.3		0.0		0.0		0.0		0.0		0.0		0.0		143.0	
36	100	0.0		0.0		0.0		0.0		600.1		577.9		673.8		0.0		0.0		0.0		0.0		0.0		0.0	100	0.5	
37		0.5		0.0		0.0		0.0		786.2		800.7		857.7		0.0		0.0		0.0		0.0		0.0		0.0		3.5	
38		0.9		0.0		0.0		0.0		4274		4376		4666		0.0		0.0		0.0		0.0		0.0		0.0		6.0	
39		204267.6		0.0		0.0		0.0		182488		236473		218823		0.0		0.0		0.0		0.0		0.0		0.0		23.9	
40	100	0.0		0.0		0.0		0.0	68	0.2	100	0.2	100	0.2		0.0		0.0		0.0		0.0		0.0		0.0	100	1.7	100
41		1.5		0.0		0.0		0.0	20	2.4	18	2.9	21	2.8		0.0		0.0		0.0		0.0		0.0		0.0	100	11.3	
42	100	0.2		0.0		0.0		0.0	65	0.6	59	0.7	63	0.7		0.0		0.0		0.0		0.0		0.0		0.0	100	4.9	100
43		212.3		0.0		0.0		0.0		207.5		255.3		237.9		0.0		0.0		0.0		0.0		0.0		0.0	100	75.5	100
44		204268		0		0		0		183274.2		237273.7		219680.3														27	
45		278		0		0		0		6125.4		6287.5		6722.4													6.6	8	7.8
46																													
47																													
48																													
49		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1	
50																													
51		F4		F5		F5		F5		F6		F6		F6		F7		F7		F7									
52		Spike		Solid non-HW		Solid non-HW		Solid non-HW		Solid non-HW		Solid non-HW		Solid non-HW		Oil		Oil		Oil									
53																						MF		MF		MF		Spike	
54		C6H5Cl		Wood chips		Wood chips		Wood chips		Bonded paper		Bonded paper		Bonded paper		Fuel oil		Fuel oil		Fuel oil									
55		52.62		1374		1446		1440		13.2		13.2		13.2		342		336		336									
56		0		7636		7636		7636		7320		7320		7320		19269		19276		19224									
57				10.5		11.0		11.0		0.1		0.1		0.1		6.6		6.5		6.5		8.8		7.9		7.7		0.0	
58		0		0.3		0.3		0.3		0.54		0.54		0.54		0.01		0.01		0.01									
59		316000		26		26		26		1040		1040		1040		490		523		16									
60																													

	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ
1																							
2																							
3																							
4	R2		R3								R1		R2		R3		R1		R2		R3		Cond Avg
5																							
6	F6		F6								F7		F7		F7		F8		F8		F8		F8
7	Solid non-HW		Solid non-HW								Oil		Oil		Oil		Total		Total		Total		Total
8	Non-HW		Non-HW								MF		MF		MF		Total		Total		Total		Total
9					Bonded paper						Fuel oil		Fuel oil		Fuel oil		Total		Total		Total		Total
10	112.2		150								468		384		336								
11	7621		7801								19109		19178		19320								
12	0.9		1.2								8.9		7.4		6.5		38.0		36.1		34.4		36.2
13	2.51		3.61								0.01		0.01		0.01								
14	56		82								470		461		429								
15	4.19	1	4.18							1	4.2	1	4.2	1	4.24								
16	0.12	1	0.12							1	0.075	1	0.075	1	0.076								
17	9.41		23.8							1	0.282	1	0.282	1	0.285								
18	0.241	1	0.071								0	1	0.071	1	0.072								
19	414		0.604							1	0.071		0.498		0.547								
20	1.18		1.61								0.495	1	0.495	1	0.5								
21	2.12		0.956								0.115		0.115		0.176								
22	0.228	1	0.228							1	0.228	1	0.228	1	0.231								
23	1.74		1.66							1	1.54	1	1.54	1	1.56								
24	0.671	1	0.671							1	0.673	1	0.653	1	0.68								
25	10.3		10.3							1	10.4	1	10.4		10.5								
26																							
27	13403		14221								14444		13403		14221								
28	10.4		11.2								10.4		10.4		11.2								
29																							
30																							
31	74.20017		145.44154								2.6257728		2.7032467		2.4463186		285.1		79.4		150.4		171.6
32	166		330							3	5555	4	4867	5	4057		3008610.7		2924792.0		3270311.1		3067905
33	12.4	100	16.8							100	48.1	100	42.5	100	38.3	89	194.8	86	183.5	88	184.4	87.7	187.5
34	0.4	100	0.5							100	0.9	100	0.8	100	0.7		1255.3		1336.2		1385.7		1325.7
35	27.8		95.9							100	3.2	100	2.9	100	2.6	6	152.7	26	37.8	9	105.8	10.0	98.8
36	0.7	100	0.3								0.0	100	0.7	100	0.6		605.7		581.1		676.5		621.1
37	1223.9		2.4							100	0.8		5.0		4.9		801.0		2038.9		875.7		1238.5
38	3.5		6.5								5.7	100	5.0	100	4.5		4296.7		4396.9		4689.4		4461.0
39	6.3		3.9								1.3		1.2		1.6		182515.3		236486.3		218829.7		212610.4
40	0.7	100	0.9							100	2.6	100	2.3	100	2.1	99	9.6	100	8.8	100	8.9	99.8	9.1
41	5.1		6.7							100	17.6	100	15.6	100	14.1	97	66.1	88	61.3	86	62.3	90.3	63.2
42	2.0	100	2.7							100	7.7	100	6.6	100	6.1	99	28.4	100	172.8	99	26.4	99.7	75.8
43	30.4		41.5							100	119.0	100	105.2		94.8	67	635.5	60	643.4		634.0	42.7	637.6
44	1230		6							38	2		6		7		183316.3		238525.2		219705.4		213849.0
45	5	3.9	7							13	7	100	6	100	6		6157.7		6314.1		6751.6		6407.8
46																							
47																							
48																							
49	R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg						
50																							
51											F8		F8		F8		F8						
52											Total		Total		Total		Total						
53	Spike		Spike		Non-HW		Non-HW		Non-HW		Total		Total		Total		Total						
54											Total		Total		Total								
55																							
56																							
57	0.0		0.0		10.6		11.1		11.1		33.3		33.0		32.7		33.0						
58																							
59																							
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
51	Gas flowrate		dscfm		13685		14302		13961		13685		14302		13961		13685		14302		13961		13685		14302
52	Oxygen		%		11.2		11		11		11.2		11		11		11.2		11		11		11.2		11
53																									
54	Feedrate MTECs																								
55	Ash		mg/dscm		4.02		1.88		1.93		0.32		0.20		0.17		0		0		0		0		0
56	Chlorine		ug/dscm		15715		9121		7760		39		61		21		1304711		1258205		1294870		443992		428747

	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC
61		13961		13685		14302		13961		13685		14302		13961		13685		14302		13961									
62		11		11.2		11		11		11.2		11		11		11.2		11		11									
63																													
64																													
65		0		115.05		113.54		115.83		1.99		1.87		1.91		0.95		0.88		0.90088		1.28		1.08		1.07		0.0	
66		445828		997		984		1004		383		359		368		4677		4599		144		4716		4660		165		1748703.1	

	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ
61																							
62																							
63																							
64																							
65	0.0		0.0		117.0		115.4		117.7		122.3		118.4		120.7		120.5						
66	1686952.3		1740698.0		1380.3		1343.3		1371.9		1770514.3		1702076.4		1749995.4		1740862.0						

	C	D	E	F	G
1	**Process Information 2**				
2					
3	**700C1**				
4					
5	Hearth Temperature	F	1980	1967	1982
6	Afterburner Temperature	F	2070	2064	2049
7	WS Temperature	F	183	183	183
8	Spray drier Temperature	F	423	419	421
9	Pressure Drop	in H2O	36.2	36.6	36.8
10	WS pH		6.87	7.77	7.69
11					
12	**700C2**				
13					
14	Hearth Temperature	F	1708	1719	1732
15	Afterburner Temperature	F	1835	1844	1862
16	WS Temperature	F	180	180	180
17	Spray drier Temperature	F	425	425	421
18	Pressure Drop	in H2O	36.4	36.5	36.8
19	WS pH		7.59	7.63	7.35