

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	492
4	EPA ID No.	TXD007330202
5	Facility Name	Eastman Chemical Company, Longview Texas
6	Facility Location	
7	City	Longview
8	State	TX
9	Unit ID Name/No.	Fluid bed Incinerator
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Fluidized bed
14	Combustor Characteristics	Fluid bed incinerator
15		
16	Capacity (MMBtu/hr)	
17	Soot Blowing	
18	APCS Detailed Acronym	HE/VS/PB/DM
19	APCS General Class	HE, HEWS, LEWS
20	APCS Characteristics	Heat exchanger, venturi, packed bed, demisters
21	Hazardous Wastes	Liq, sludge
22	Haz Waste Description	Various hi-Btu (10-20 kBtu/lb) low ash (<1%) liquid waste & biological wastewater treatment sludge
23	Supplemental Fuel	Natural gas
24		
25	Stack Characteristics	
26	Diameter (ft)	
27	Height (ft)	
28	Gas Velocity (ft/sec)	35.0
29	Gas Temperature (°F)	182
30		
31	Permitting Status	Tier 3 for Cd, As, Be, Cr
32	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	492C10	492C10
4		
5	Report Name/Date	Trial Burn Report, Fluid Bed Incinerator, Jan 1999
6	Report Prepare	Radian International
7	Testing Firm	Radian International
8	Testing Dates	October 2-3, 1998
9	Cond Dates	Oct-98
10	Condition Descr	Trial burn - min temp/DRE
11	Content	PM, Hcl/Cl2, DRE, D/Fs, V/SV PICs, CO, PSD, aldehydes/ketones
12		
13	492C11	492C11
14		
15	Report Name/Date	Trial Burn Report, Fluid Bed Incinerator, Jan 1999
16	Report Prepare	Radian International
17	Testing Firm	Radian International
18	Testing Dates	October 1, 1998
19	Cond Dates	Oct-98
20	Condition Descr	Trial burn - worst-case metals
21	Content	PM, HCl/Cl2, metals, Cr6, & waste feed ash/Cl/metals
22		
23	492C1	
24		
25	Report Name/Date	Texas Eastman Company Trial Burn Program Emission Test Results, Alliance Project No. 5-986-999, April 5, 1991
26	Report Prepare	Alliance
27	Testing Firm	Alliance
28	Testing Dates	January 31, 1991
29	Cond Dates	Jan-91
30	Condition Descr	Max liquid, minimum sludge, high temp
31	Content	
32		
33	492C2	
34		
35	Report Name/Date	Texas Eastman Company Trial Burn Program Emission Test Results, Alliance Project No. 5-986-999, April 5, 1991
36	Report Prepare	Alliance
37	Testing Firm	Alliance
38	Testing Dates	February 1, 1991
39	Cond Dates	Feb-91
40	Condition Descr	Max sludge, min liquid, max temp
41	Content	
42		
43	492C3	
44		
45	Report Name/Date	Texas Eastman Company Trial Burn Program Emission Test Results, Alliance Project No. 5-986-999, April 5, 1991
46	Report Prepare	Alliance
47	Testing Firm	Alliance
48	Testing Dates	February 2, 1991
49	Cond Dates	Feb-91
50	Condition Descr	med sludge, med liquid, min temp
51	Content	

	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	492C10	Trial burn - min temp/DRE				R1		R2		R3		Cond Avg
6												
7	CO (RA)	E1	ppmv	y		48		25		37		36.7
8												
9	PM	E1	gr/dscf	y		0.0065		0.0063		0.0056		0.0061
10												
11	HCl		ug/dscf	n		80.40		28.20		71.40		
12	Cl2		ug/dscf	n		0.00		0.00		0.00		
13												
14	HCl	E1	ppmv	y		2.18		0.84		1.97		1.66
15	Cl2	E1	ppmv	y		0.00		0.00		0.00		0.00
16	Total Chlorine	E1	ppmv	y		2.18		0.84		1.97		1.66
17												
18	POHC	Chlorobenzene				Liquid waste spike						
19	POHC Feedrate		lb/hr			20.01		19.99		20		20.0000
20	Emission Rate	E2	lb/hr			1.70E-06		7.80E-06		9.40E-06		0.0000063
21	DRE	E2	%			99.99999		99.99996		99.99995		99.99997
22												
23	POHC	1,2-dichlorobenzene				Sludge waste spike						
24	POHC Feedrate		lb/hr			20		20.03		20.03		20.02000
25	Emission Rate	E2	lb/hr		<	8.36E-06	<	8.60E-06	<	8.12E-06		0.00001
26	DRE	E2	%		>	99.99996	>	99.99996	>	99.99996	>	99.99996
27												
28	Sampling Train	PMHCl/Cl2	E1									
29	Stack Gas Flowrate		dscfm			7570		7340		7300		7403
30	O2		%			8.8		9.9		9		9.2
31	Moisture		%			52.5		50.5		51.5		52
32	Temperature		°F			183		181		181		182
33												
34	Sampling Train	D/Fs	E2									
35	Stack Gas Flowrate		dscfm			7730		7940		7870		7847
36	O2		%			8.8		9.9		9		9
37	Moisture		%			51.1		49.4		50.6		50
38	Temperature		°F			180		179		179		179
39												
40	492C11	Trial burn - worst-case				R3		R4		R5		Cond Avg
41												
42	CO (RA)	E1	ppmv	y		24		23		23		23.3
43												
44	PM	E1	gr/dscf	y		0.0155		0.0133		0.0118		0.0135
45												
46	HCl		ug/dscf	n		17.5		11.6		5.13		
47	Cl2		ug/dscf	n		0		0		0		
48												
49	HCl	E1	ppmv	y		0.62		0.61		0.13		0.45
50	Cl2	E1	ppmv	y		0.00		0.00		0.00		0.00
51	Total Chlorine	E1	ppmv	y		0.62		0.61		0.13		0.45
52												
53	Sampling Train	PM/HCl/Cl2	E1									
54	Stack Gas Flowrate		dscfm			6900		6900		7390		7063
55	O2		%			9.9		9.8		9.6		9.8
56	Moisture		%			47.1		46.7		45.5		46.4
57	Temperature		°F			177		176		175		176
58												
59	Metals (blank corrected)											
60	Antimony		ug/dscf	n		3.96		2.28		2.03		
61	Arsenic		ug/dscf	n	nd	0.0000	nd	0.0000	nd	0.0000		
62	Barium		ug/dscf	n		21.80		20.30		17.20		
63	Beryllium		ug/dscf	n		0.0033		0.0008		0.0006		
64	Cadmium		ug/dscf	n		0.3700		0.2350		0.3480		
65	Chromium		ug/dscf	n		11.7000		14.7000		7.5000		
66	Chromium (Hex)		ug/dscf	n		1.9300		1.5100		2.2800		
67	Lead		ug/dscf	n		2.0500		0.9520		1.0400		
68	Mercury		ug/dscf	n		92.4		104.0		106.0		
69	Nickel		ug/dscf	n		1.6700		1.5700		1.1800		
70	Selenium		ug/dscf	n		1.5400		1.6500		2.4000		
71	Silver		ug/dscf	n		0.8770		0.6530		0.8230		

	B	C	D	E	F	G	H	I	J	K	L	M
72	Thallium		ug/dscf	n		26.3000		26.1000		30.6000		
73	Zinc		ug/dscf	n		9.7500		7.9900		4.2100		
74												
75	Sampling Train	Metals	E2									
76	Stack Gas Flowrate		dscfm			6970		6930		7210		7037
77	O2		%			9.9		9.8		9.6		10
78	Moisture		%			47		47.2		45.5		47
79	Temperature		°F			176		176		176		176
80												
81	Sampling Train	Cr+6 train	E3									
82	Stack Gas Flowrate		dscfm			7320		7460		7330		7370
83	O2		%			9.9		9.9		9.6		10
84	Moisture		%			46.8		46.2		47		47
85	Temperature		°F			176		175		176		176
86												
87	Antimony	E2	ug/dscm	y		176		101		88		122
88	Arsenic	E2	ug/dscm	y	nd	0.0 nd		0.0 nd		0.0		0.0
89	Barium	E2	ug/dscm	y		971		896		746		871
90	Beryllium	E2	ug/dscm	y		0.15		0.03		0.03		0.07
91	Cadmium	E2	ug/dscm	y		16		10		15		13.98
92	Chromium	E2	ug/dscm	y		521		649		325		498
93	Chromium (Hex)	E3	ug/dscm	y		86		67		99		84
94	Lead	E2	ug/dscm	y		91		42		45		59
95	Mercury	E2	ug/dscm	y		4115		4590		4596		4434
96	Nickel	E2	ug/dscm	y		74		69		51		65
97	Selenium	E2	ug/dscm	y		69		73		104		82
98	Silver	E2	ug/dscm	y		39		29		36		35
99	Thallium	E2	ug/dscm	y		1171		1152		1327		1217
100	Zinc	E2	ug/dscm	y		434		353		183		323
101												
102	SVM	E2	ug/dscm	y		107.8		52.4		60.2		73
103	LVM	E2	ug/dscm	y		521		649		325		498

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 2											
2												
3												
4	492C1					R1		R2		R3		Cond Avg
5												
6	Chlorobenzene	E1	%			99.9996		99.9997		99.9996		
7	Chloroform	E1	%			99.9983		99.9947		99.9983		
8												
9	PM	E1	gr/dscf	y		0.0096		0.011		0.013		0.0112
10	HCl		lb/hr			0.07		0.1		0.11		
11	Cl2		lb/hr		nd	0 nd		0 nd		0		
12												
13	CO (RA)		ppmv			2.4		4.9		10		
14	HC (RA)		ppmv			2.29		2.59		1.8		
15	CO (RA)	E1	ppmv	y		2.8		5.9		13.3		7.3
16	HC (RA)	E1	ppmv	y		2.7		3.1		2.4		2.7
17												
18	HCl	E1	ppmv	y		1.9		2.7		3.2		2.6
19	Cl2	E1	ppmv	y		0.0		0.0		0.0		0.0
20	Total Chlorine	E1	ppmv	y		1.9		2.7		3.2		2.6
21												
22	Antimony		ug/dscf	n	nd	0.100 nd		0.100 nd		0.100		
23	Arsenic		ug/dscf	n	nd	0.040 nd		0.040 nd		0.040		
24	Barium		ug/dscf	n		0.200		0.300		0.200		
25	Beryllium		ug/dscf	n		0.010		0.020		0.010		
26	Cadmium		ug/dscf	n		0.100		0.100		0.100		
27	Chromium		ug/dscf	n		0.300		0.200		0.200		
28	Lead		ug/dscf	n		1.200		1.400		1.700		
29	Mercury		ug/dscf	n		0.100		0.100		0.100		
30	Silver		ug/dscf	n	nd	0.020		0.020		0.020		
31	Thallium		ug/dscf	n		0.100		0.100		0.100		
32												
33	Antimony	E1	ug/dscm	y		4.092		4.243		4.685		4.3
34	Arsenic	E1	ug/dscm	y		1.637		1.697		1.874		1.7
35	Barium	E1	ug/dscm	y		8.184		12.728		9.369		10.1
36	Beryllium	E1	ug/dscm	y		0.409		0.849		0.468		0.6
37	Cadmium	E1	ug/dscm	y		4.092		4.243		4.685		4.3
38	Chromium	E1	ug/dscm	y		12.275		8.485		9.369		10.0
39	Lead	E1	ug/dscm	y		49.102		59.398		79.639		62.7
40	Mercury	E1	ug/dscm	y		4.092		4.243		4.685		4.3
41	Silver	E1	ug/dscm	y		0.818		0.849		0.937		0.9
42	Thallium	E1	ug/dscm	y		4.092		4.243		4.685		4.3
43												
44	SVM	E1	ug/dscm	y		53.194		63.641		84.324		67.1
45	LVM	E1	ug/dscm	y		14.321		11.031		11.712		12.4
46												
47	Sampling Train	PM	E1									
48	Stack Gas Flowrate		dscfm			7563		7924		8098		
49	O2		%			8.91		9.34		10.44		
50	Moisture		%			44.6		44.2		42.1		
51	Temperature		°F			174.7		177.8		173		
52												
53	492C2					R1		R2		R3		Cond Avg
54												
55	Chlorobenzene	E1	%			99.9996		99.9997		99.9997		
56	Chloroform	E1	%			99.998		99.9982		99.996		
57												
58	PM	E1	gr/dscf	y		0.0058		0.0106		0.009		0.0085
59	HCl		lb/hr			0.24		0.14		0.14		
60	Cl2		lb/hr		nd	0 nd		0 nd		0		
61												
62	CO (RA)					26		25.6		26.3		
63	HC (RA)		ppmv			0.99		1.38		1.68		
64	CO (RA)	E1	ppmv	y		23.2		25.7		27.3		25.4
65	HC (RA)	E1	ppmv	y		0.9		1.4		1.7		1.3
66												
67	HCl	E1	ppmv	y		5.6		3.7		3.9		4.4
68	Cl2	E1	ppmv	y		0.0		0.0		0.0		0.0
69	Total Chlorine	E1	ppmv	y		5.6		3.7		3.9		4.4
70												
71	Sampling Train	PM	E1									

	B	C	D	E	F	G	H	I	J	K	L	M
72	Stack Gas Flowrate		dscfm			6856		6769		6675		
73	O2		%			5.32		7.03		7.53		
74	Moisture		%			54.9		52.7		51.3		
75	Temperature		°F			184.8		181.7		180.7		
76												
77	Antimony		ug/dscf	n	nd	0.100	nd	0.100	nd	0.100		
78	Arsenic		ug/dscf	n	nd	0.040	nd	0.060	nd	0.060		
79	Barium		ug/dscf	n		0.200		0.100		0.100		
80	Beryllium		ug/dscf	n		0.010		0.010		0.000		
81	Cadmium		ug/dscf	n		0.030		0.030		0.070		
82	Chromium		ug/dscf	n		0.100		0.100		0.000		
83	Lead		ug/dscf	n		0.700		0.700		0.400		
84	Mercury		ug/dscf	n		0.100		0.100		0.100		
85	Silver		ug/dscf	n		0.020	nd	0.030	nd	0.030		
86	Thallium		ug/dscf	n	nd	0.100	nd	0.100	nd	0.100		
87												
88	Antimony	E1	ug/dscm	y		3.155		3.541		3.673		3.5
89	Arsenic	E1	ug/dscm	y		1.262		2.125		2.204		1.9
90	Barium	E1	ug/dscm	y		6.310		3.541		3.673		4.5
91	Beryllium	E1	ug/dscm	y		0.315		0.354		0.000		0.2
92	Cadmium	E1	ug/dscm	y		0.946		1.062		2.571		1.5
93	Chromium	E1	ug/dscm	y		3.155		3.541		0.000		2.2
94	Lead	E1	ug/dscm	y		22.085		24.788		14.690		20.5
95	Mercury	E1	ug/dscm	y		3.155		3.541		3.673		3.5
96	Silver	E1	ug/dscm	y		0.631		1.062		1.102		0.9
97	Thallium	E1	ug/dscm	y		3.155		3.541		3.673		3.5
98												
99	SVM	E1	ug/dscm	y		23.031		25.850		17.261		22.0
100	LVM	E1	ug/dscm	y		4.732		6.020		2.204		4.3
101												
102	492C3					R1		R2		R3		Cond Avg
103												
104	Chlorobenzene	DRE	%			99.9995		99.9996		99.9997		
105	Chloroform	DRE	%			99.9976		99.9985		99.9968		
106												
107	PM	E1	gr/dscf	y		0.0076		0.0046		0.0125		0.0082
108												
109	CO (RA)		ppmv			70.2		67.8		71.2		
110	HC (RA)		ppmv			1.48		2.08		1.78		
111	CO (RA)	E1	ppmv	y		92.8		84.4		90.0		89.1
112	HC (RA)	E1	ppmv	y		2.0		2.6		2.2		2.3
113												
114	HCl	E1	ppmv	y		4.9		2.8		5.0		4.2
115	Cl2	E1	ppmv	y	nd	0.0		0.2		0.9		0.4
116	Total Cl	E1	ppmv	y		4.9		3.2		6.8		5.0
117												
118	Sampling Train	PM	E1									
119	Stack Gas Flowrate		dscfm			7400		7704		8082		
120	O2		%			10.41		9.76		9.92		
121	Moisture		%			42.5		44.3		43.9		
122	Temperature		°F			172.7		174.8		173.8		
123												
124	Antimony		ug/dscf	n	nd	0.100	nd	0.100	nd	0.100		
125	Arsenic		ug/dscf	n	nd	0.050	nd	0.050	nd	0.050		
126	Barium		ug/dscf	n		0.100		0.100		0.100		
127	Beryllium		ug/dscf	n		0.010		0.010		0.010		
128	Cadmium		ug/dscf	n		0.010		0.010		0.030		
129	Chromium		ug/dscf	n		0.100		0.100		0.100		
130	Lead		ug/dscf	n		0.200		0.100		0.100		
131	Mercury		ug/dscf	n		0.200		0.100		0.100		
132	Silver		ug/dscf	n	nd	0.030		0.060		0.020		
133	Thallium		ug/dscf	n	nd	0.100	nd	0.100	nd	0.100		
134												
135	Antimony	E1	ug/dscm	y		4.671		4.401		4.465		4.5
136	Arsenic	E1	ug/dscm	y		2.336		2.201		2.232		2.3
137	Barium	E1	ug/dscm	y		4.671		4.401		4.465		4.5
138	Beryllium	E1	ug/dscm	y		0.467		0.440		0.446		0.5
139	Cadmium	E1	ug/dscm	y		0.467		0.440		1.339		0.7
140	Chromium	E1	ug/dscm	y		4.671		4.401		4.465		4.5
141	Lead	E1	ug/dscm	y		9.343		4.401		4.465		6.1
142	Mercury	E1	ug/dscm	y		9.343		4.401		4.465		6.1

	B	C	D	E	F	G	H	I	J	K	L	M
143	Silver	E1	ug/dscm	y		1.401		2.641		0.893		1.6
144	Thallium	E1	ug/dscm	y		4.671		4.401		4.465		4.5
145												
146	SVM	E1	ug/dscm	y		9.810		4.841		5.804		6.8
147	LVM	E1	ug/dscm	y		7.474		7.042		7.144		7.2

	B	C	D	E	F	G	H	I	J	K	L	M
1	Feedstream 1											
2												
3												
4	492C10	Trial burn - min temp/17%O2				R1	R2	R3	Cond Avg			
5												
6	Feedstream Number					F1	F1	F1	F1			
7	Feed Class					Total	Total	Total	Total			
8	Feed Class 2					Total	Total	Total	Total			
9	Feedstream Description					Total	Total	Total	Total			
10	Feed Rate	lb/hr				14032	14645	14431	14369			
11	Ash	lb/hr				751	802	843	798.67			
12	Chlorine	lb/hr				16	16	16	16			
13	Thermal Feedrate	MMBtu/hr				20.0	23.0	20.8	21			
14												
15	Stack Gas Flowrate	dscfm				7570	7340	7300	7403			
16	Oxygen	%				8.8	9.9	9	9.2			
17												
18	Estimated Firing Rate	MMBtu/hr				29.32	25.86	27.81	27.65			
19												
20	<i>Feedrate MTEC Calculations</i>											
21	Ash	mg/dscm	y			30439	36847	36022	34436			
22	Chlorine	ug/dscm	y			644448	735101	683694	687748			
23												
24												
25												
26	492C11	Trial burn - worst-case metals				R3	R4	R5	Cond Avg			
27												
28	Feedstream Number					F1	F1	F1	F1			
29	Feed Class					Total	Total	Total	Total			
30	Feed Class 2					Total	Total	Total	Total			
31	Feedstream Description					Total	Total	Total	Total			
32	Feed Rate	lb/hr				8969	8992	9005	8989			
33	Ash	lb/hr				361	343	327	344			
34	Chlorine	lb/hr				1.8	1.8	1.8	2			
35												
36												
37	Antimony	lb/hr				0.54	0.54	0.53	0.54			
38	Arsenic	lb/hr				0.0191	0.0185	0.0185	0.019			
39	Barium	lb/hr				1.24	1.21	1.21	1.2			
40	Beryllium	lb/hr				3.99E-03	3.41E-03	3.56E-03	0.004			
41	Cadmium	lb/hr				8.18E-03	8.06E-03	8.18E-03	0.008			
42	Chromium	lb/hr				1.67	1.66	1.67	1.7			
43	Lead	lb/hr				0.052	0.0485	0.0521	0.051			
44	Mercury	lb/hr				0.0967	0.0966	0.0966	0.10			
45	Nickel	lb/hr				5.54	5.49	5.51	5.5			
46	Selenium	lb/hr				0.1	0.101	0.101	0.10			
47	Silver	lb/hr				0.156	0.155	0.157	0.16			
48	Thallium	lb/hr				0.225	0.225	0.227	0.23			
49	Zinc	lb/hr				7.81	7.65	7.91	7.79			
50												
51												
52	Stack Gas Flowrate	dscfm				6900	6900	7390	7063			
53	Oxygen	%				9.9	9.8	9.6	10			
54												
55	Estimated Firing Rate	MMBtu/hr				24.31	24.53	26.74	25.19			
56												
57	<i>Feedrate MTEC Calculations</i>											
58	Ash	mg/dscm	y			17643	16614	14529	16262			
59	Chlorine	ug/dscm	y			87669	87109	80022	84934			
60	Antimony	ug/dscm	y			26392	26059	23593	25348			

	B	C	D	E	F	G	H	I	J	K	L	M
61	Arsenic		ug/dscm	y		933		896		822		884
62	Barium		ug/dscm	y		60603		58609		53763		57658
63	Beryllium		ug/dscm	y		195		165		158		173
64	Cadmium		ug/dscm	y		400		390		363		385
65	Chromium		ug/dscm	y		81619		80406		74202		78742
66	Lead		ug/dscm	y		2541		2349		2315		2402
67	Mercury		ug/dscm	y		4726		4679		4292		4566
68	Selenium		ug/dscm	y		270760		265920		244821		260500
69	Silver		ug/dscm	y		4887		4892		4488		4756
70	Thallium		ug/dscm	y		7624		7508		6976		7369
71	Zinc		ug/dscm	y		10997		10898		10086		10660
72												
73	SVM		ug/dscm	y		2941		2740		2678		2786
74	LVM		ug/dscm	y		82747		81467		75182		79799
75												
76												
77												
78												
79												
80												
81												
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	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U				
1	Feedstream 2																							
2																								
3	492C1				R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg		R1	R2	R3	Cond Avg							
4																								
5	Feedstream Number													F1	F1	F1	F1							
6	Feed Class													Total	Total	Total	Total							
7	Feed Class 2													Total	Total	Total	Total							
8	Feedstream Description					Wastewater sludge				Liquid waste				Total	Total	Total	Total							
9	Feedrate	lb/hr																						
10																								
11	Chlorine	lb/hr																						
12	Ash	lb/hr																						
13																								
14	Aluminum	lb/hr													nd	7.9	nd	7.9	nd	7.9				
15	Antimony	lb/hr													nd	0.023	nd	0.023	nd	0.023				
16	Arsenic	lb/hr													nd	0.016	nd	0.016	nd	0.016				
17	Barium	lb/hr													nd	0.210	nd	0.210	nd	0.210				
18	Beryllium	lb/hr													nd	0.036	nd	0.036	nd	0.036				
19	Cadmium	lb/hr													nd	0.001	nd	0.001	nd	0.001				
20	Chromium	lb/hr													nd	0.240	nd	0.240	nd	0.240				
21	Lead	lb/hr													nd	0.042	nd	0.042	nd	0.042				
22	Mercury	lb/hr													nd	0.001	nd	0.001	nd	0.001				
23	Silver	lb/hr													nd	0.008	nd	0.008	nd	0.008				
24	Thallium	lb/hr													nd	0.031	nd	0.032	nd	0.032				
25																								
26	Stack Gas Flowrate													7563	7924	8098	7862							
27	Oxygen													8.91	9.34	10.44	10							
28																								
29	<i>Feedrate MTEC Calculations</i>																							
30	Ash	mg/dscm																						
31	Chlorine	ug/dscm																						
32	Aluminum	ug/dscm													nd	323410	nd	320059	nd	345805				
33	Antimony	ug/dscm													nd	942	nd	932	nd	1007				
34	Arsenic	ug/dscm													nd	655	nd	648	nd	700				
35	Barium	ug/dscm													nd	8597	nd	8508	nd	9192				
36	Beryllium	ug/dscm													nd	1474	nd	1458	nd	1576				
37	Cadmium	ug/dscm													nd	49	nd	49	nd	53				
38	Chromium	ug/dscm													nd	9825	nd	9723	nd	10505				
39	Lead	ug/dscm													nd	1719	nd	1702	nd	1838				
40	Mercury	ug/dscm													nd	57	nd	57	nd	61				
41	Silver	ug/dscm													nd	319	nd	316	nd	341				
42	Thallium	ug/dscm													nd	1269	nd	1296	nd	1401				
43	SVM	ug/dscm													nd	884	nd	875	nd	945				
44	LVM	ug/dscm													nd	5977	nd	5915	nd	6391				
45																								
46	492C2				R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg		R1	R2	R3	Cond Avg							
47																								
48	Feedstream Number													F1	F1	F1	F1							
49	Feed Class													Total	Total	Total	Total							
50	Feed Class 2													Total	Total	Total	Total							
51	Feedstream Description					Wastewater sludge				Liquid waste				Total	Total	Total	Total							
52	Feedrate	lb/hr																						
53																								
54	Chlorine	lb/hr																						
55	Ash	lb/hr																						
56																								
57	Aluminum	lb/hr													nd	13	nd	12	nd	12				
58	Antimony	lb/hr													nd	0.035	nd	0.033	nd	0.033				
59	Arsenic	lb/hr													nd	0.024	nd	0.022	nd	0.022				
60	Barium	lb/hr													nd	0.033	nd	0.310	nd	0.310				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
61	Beryllium		lb/hr										nd	0.055	nd	0.051	nd	0.051		
62	Cadmium		lb/hr										nd	0.002	nd	0.002	nd	0.002		
63	Chromium		lb/hr										nd	0.400	nd	0.360	nd	0.360		
64	Lead		lb/hr										nd	0.082	nd	0.076	nd	0.076		
65	Mercury		lb/hr										nd	0.002	nd	0.002	nd	0.002		
66	Silver		lb/hr										nd	0.012	nd	0.011	nd	0.011		
67	Thallium		lb/hr										nd	0.047	nd	0.044	nd	0.044		
68																				
69	Stack Gas Flowrate													6856		6769		6675		6767
70	Oxygen													5.32		7.03		7.53		7
71																				
72	Estimated Firing Rate		MMBtu/hr											34.13		30.02		28.54		30.88
73																				
74	<i>Feedrate MTEC Calculations</i>																			
75	Ash		mg/dscm																	169651
76	Chlorine		ug/dscm																	515726
77	Aluminum		ug/dscm										nd	452661	nd	475014	nd	499584		475753
78	Antimony		ug/dscm										nd	1219	nd	1306	nd	1374		1300
79	Arsenic		ug/dscm										nd	836	nd	871	nd	916		874
80	Barium		ug/dscm											1149		12271		12906		8775
81	Beryllium		ug/dscm										nd	1915	nd	2019	nd	2123		2019
82	Cadmium		ug/dscm										nd	63	nd	63	nd	67		64
83	Chromium		ug/dscm										nd	13928	nd	14250	nd	14988		14389
84	Lead		ug/dscm										nd	2855	nd	3008	nd	3164		3009
85	Mercury		ug/dscm										nd	56	nd	59	nd	62		30
86	Silver		ug/dscm										nd	418	nd	435	nd	458		437
87	Thallium		ug/dscm										nd	1637	nd	1742	nd	1832		1737
88	SVM		ug/dscm											1459		1536		1615		1537
89	LVM		ug/dscm											8339		8570		9013		8641
90																				
91																				
92																				
93	492C3				R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg		R1	R2	R3	Cond Avg			
94																				
95	Feedstream Number													F1	F1	F1	F1			
96	Feed Class													Total	Total	Total	Total			
97	Feed Class 2													Total	Total	Total	Total			
98	Feedstream Description				Wastewater sludge				Liquid waste					Total	Total	Total	Total			
99	Feedrate		lb/hr																	
100																				
101	Chlorine		lb/hr																	13.5
102	Ash		lb/hr																	3139
103																				
104	Aluminum		lb/hr										nd	11	nd	11	nd	11		
105	Antimony		lb/hr										nd	0.028	nd	0.028	nd	0.028		
106	Arsenic		lb/hr										nd	0.019	nd	0.019	nd	0.019		
107	Barium		lb/hr										nd	0.300	nd	0.300	nd	0.300		
108	Beryllium		lb/hr										nd	0.049	nd	0.049	nd	0.049		
109	Cadmium		lb/hr										nd	0.001	nd	0.001	nd	0.001		
110	Chromium		lb/hr											0.380		0.380		0.380		
111	Lead		lb/hr										nd	0.110	nd	0.110	nd	0.110		
112	Mercury		lb/hr										nd	0.000	nd	0.000	nd	0.000		
113	Silver		lb/hr										nd	0.009	nd	0.009	nd	0.009		
114	Thallium		lb/hr										nd	0.042	nd	0.042	nd	0.042		
115																				
116	Stack Gas Flowrate													7400		7704		8082		7729
117	Oxygen													10.41		9.76		9.92		10
118																				
119	Estimated Firing Rate		MMBtu/hr											24.88		27.49		28.43		26.92
120																				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
121	<i>Feedrate MTEC Calculations</i>																			
122	Ash		mg/dscm																	138588
123	Chlorine		ug/dscm																	596031
124	Aluminum		ug/dscm										nd	525426	nd	475506	nd	459812		486915
125	Antimony		ug/dscm										nd	1337	nd	1210	nd	1170		1239
126	Arsenic		ug/dscm										nd	908	nd	821	nd	794		841
127	Barium		ug/dscm										nd	14330	nd	12968	nd	12540		13279
128	Beryllium		ug/dscm										nd	2341	nd	2118	nd	2048		2169
129	Cadmium		ug/dscm										nd	67	nd	61	nd	59		62
130	Chromium		ug/dscm											18151		16427		15884		16821
131	Lead		ug/dscm										nd	5254	nd	4755	nd	4598		4869
132	Mercury		ug/dscm										nd	16	nd	15	nd	14		8
133	Silver		ug/dscm										nd	449	nd	406	nd	393		416
134	Thallium		ug/dscm										nd	2006	nd	1816	nd	1756		1859
135	SVM		ug/dscm											2661		2408		2328		2466
136	LVM		ug/dscm											19775		17896		17306		18326

	B	C	D	E
1	Process Information			
2				
3	492C10	Trial burn - min temp		Cond Avg
4				
5	Comb Chamb (freeboard) Temp	°F		1617
6	Venturi pressure drop	in H2O		22
7	Venturi water flow	gpm		253
8	Scrubber water pH			6.7
9	Scrubber water flow	gpm		134
10	Scrubber blowdown	gpm		33
11				
12	492C11	Trial burn - worst-case		Cond Avg
13				
14	Comb Chamb (freeboard) Temp	°F		1744
15	Venturi pressure drop	in H2O		20
16	Venturi water flow	gpm		243
17	Scrubber water pH			6.9
18	Scrubber water flow	gpm		134
19	Scrubber blowdown	gpm		30

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:	Eastman Chemical Company, Longview Texas																
4	Condition ID:	492C10 Trial burn - min temp/DRE																
5	Condition/Test Date:	Risk burn, Oct 1, 1998																
6																		
7																		
8	I-TEF	Run 1				Run 2				Run 3								
9	Wght Fact	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	
10	Detected in sample volume (pg)	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	
11	2,3,7,8-TCDD	1	nd	6.5	6.50	3.25	3.25	nd	6.5	6.50	3.25	3.25	nd	8	8	4	4	
12	Total TCDD	0		100	0	100	0		43	0.00	43	0.00		34	0	34	0	
13	1,2,3,7,8-PCDD	0.5		9.9	4.95	9.90	4.95	nd	6	3.00	3.00	1.50	nd	6.6	3	3	2	
14	Total PCDD	0		120	0	120	0		57	0.00	57	0.00		33	0	33	0	
15	1,2,3,4,7,8-HxCDD	0.1		22	2.20	22.00	2.20	nd	8.3	0.83	4.15	0.42	nd	7.6	1	4	0	
16	1,2,3,6,7,8-HxCDD	0.1		32	3.20	32.00	3.20	nd	6.8	0.68	3.40	0.34	nd	6.2	1	3	0	
17	1,2,3,7,8,9-HxCDD	0.1		24	2.40	24.00	2.40	nd	6.7	0.67	3.35	0.34	nd	6.1	1	3	0	
18	Total HxCDD	0		300	0	300	0		77	0.00	77	0.00		70	0	70	0	
19	1,2,3,4,6,7,8-HpCDD	0.01		230	2.30	230.00	2.30		36	0.36	36.00	0.36		37	0	37	0	
20	Total HpCDD	0		410	0	410	0		73	0.00	73	0.00		80	0	80	0	
21	OCDD	0.001		610	0.61	610.00	0.61		100	0.10	100	0.10		150	0	150	0	
22	2,3,7,8-TCDF	0.1		98	9.80	98.00	9.80		50	5.00	50	5.00		58	6	58	6	
23	Total TCDF	0		1900	0	1900	0		1100	0.00	1100	0.00		1200	0	1200	0	
24	1,2,3,7,8-PCDF	0.05		99	5	99	5		27	1.35	27	1.35		27	1	27	1	
25	2,3,4,7,8-PCDF	0.5		120	60	120	60		34	17.00	34	17.00		37	19	37	19	
26	Total PCDF	0		1200	0	1200	0		390	0.00	390	0.00		430	0	430	0	
27	1,2,3,4,7,8-HxCDF	0.1		430	43	430	43		42	4.20	42	4.20		30	3	30	3	
28	1,2,3,6,7,8-HxCDF	0.1		340	34	340	34		39	3.90	39	3.90		26	3	26	3	
29	2,3,4,6,7,8-HxCDF	0.1		270	27	270	27		35	3.50	35	3.50		25	3	25	3	
30	1,2,3,7,8,9-HxCDF	0.1		92	9	92	9		13	1.30	13	1.30		11	1	11	1	
31	Total HxCDF	0		2900	0	2900	0		300	0.00	300	0.00		190	0	190	0	
32	1,2,3,4,6,7,8-HpCDF	0.01		4100	41	4100	41		310	3.10	310	3.10		230	2	230	2	
33	1,2,3,4,7,8,9-HpCDF	0.01		630	6	630	6		44	0.44	44	0.44		49	0	49	0	
34	Total HpCDF	0		6200	0	6200	0		480	0.00	480	0.00		380	0	380	0	
35	OCDF	0.001		6700	7	6700	7		400	0.40	400	0.40		540	1	540	1	
36																		
37	Gas sample volume (dscf)				109.52	109.52	109.52			107.005	107.005	107.005			111.854	111.854	111.854	
38	O2 (%)				8.80	8.80	8.80			9.9	9.9	9.9			9	9	9	
39																		
40	PCDD/PCDF (ng in sample)				0.264	20.4	0.261			0.052	3.0	0.046			0.05	3.1	0.05	
41	PCDD/PCDF (ng/dscm @ 7% O2)	2.5			0.098	7.568	0.097	22.3		0.02	1.26	0.02	25.6		0.02	1.15	0.02	
42																		
43	TEQ Cond Avg	0.04																
44	Total Cond Avg	3.3																