	B	C
1	**Source Description**	
2		
3	Phase I ID No.	613
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.	Rotary kiln incinerator (RKI)
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Rotary kiln, afterburner, International Inc., 10' diameter, 35' long
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	WHB/QC/HES/PBS
18	APCS General Class	WHB, WQ, HEWS, LEWS
19	APCS Characteristics	Waste heat boiler, water quench, free jet scrubber (Hydrosonics fixed throat), packed bed scrubber
20	Hazardous Wastes	Liq, solid, sludge
21	Haz Waste Description	Liquid, sludge, slurries, solids
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	4.0
26	Height (ft)	
27	Gas Velocity (ft/sec)	17.2
28	Gas Temperature (°F)	184.3
29		
30	Permitting Status	Tier III -- As, Cd, Cr, Pb
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**613C10**	
4		
5	Report Name/Date	Trial Burn Report, Rotary Kiln Incinerator, Texas Eastman Division Eastman Chemical Company, Longview, Texas, January 4, 1999
6	Report Prepare	Radian International
7	Testing Firm	Radian International
8	Testing Dates	September 24, 1998
9	Cond Dates	Sep-98
10	Condition Descr	Trial burn, high temp metals and chlorine determination
11	Content	PM, HCl/Cl2, HF, HBr, metals, CO, PSD
12		
13	**613C11**	
14		
15	Report Name/Date	Trial Burn Report, Rotary Kiln Incinerator, Texas Eastman Division Eastman Chemical Company, Longview, Texas, January 4, 1999
16	Report Prepare	Radian International
17	Testing Firm	Radian International
18	Testing Dates	September 22-23, 1998
19	Cond Dates	Sep-98
20	Condition Descr	Trial burn, low temp DRE and risk burn, max ash
21	Content	PM, HCl/Cl2, HF, HBr, D/F, SVOC, VOC, PAH, aldehyde/ketones, CO
22		
23	**613C1**	
24		
25	Report Name/Date	Environmental Assesment of the Texas Eastman Hazardous Waste Incinerator, February, 1985, Prepared by Acurex, Project # 6699, Purchase Order # 144-0078-B-P, Longview, Texas
26	Report Prepare	Acurex Corp
27	Testing Firm	Acurex Corp
28	Cond Descr	Waste Combination 1, Temp: 1650 F
29	Testing Dates	November 1,2,8, 1984
30	Cond Dates	Nov-84
31		
32	**613C2**	
33		
34	Report Name/Date	Environmental Assesment of the Texas Eastman Hazardous Waste Incinerator, February, 1985, Prepared by Acurex, Project # 6699, Purchase Order # 144-0078-B-P, Longview, Texas
35	Report Prepare	Acurex Corp
36	Testing Firm	Acurex Corp
37	Cond Descr	Waste Combination 1, Temp: 1500 F
38	Testing Dates	November 5-6, 1984
39	Cond Dates	Nov-84
40		
41	**613C3**	
42		
43	Report Name/Date	Environmental Assesment of the Texas Eastman Hazardous Waste Incinerator, February, 1985, Prepared by Acurex, Project # 6699, Purchase Order # 144-0078-B-P, Longview, Texas
44	Report Prepare	Acurex Corp
45	Testing Firm	Acurex Corp
46	Cond Descr	Waste Combination 1, Temp: 1800 F
47	Testing Dates	November 7-8, 1984
48	Cond Dates	Nov-85
49		
50	**613C4**	
51		
52	Report Name/Date	Environmental Assesment of the Texas Eastman Hazardous Waste Incinerator, February, 1985, Prepared by Acurex, Project # 6699, Purchase Order # 144-0078-B-P, Longview, Texas
53	Report Prepare	Acurex Corp
54	Testing Firm	Acurex Corp
55	Cond Descr	Waste Combination 2, Temp: 1650 F
56	Testing Dates	November 9, 1984
57	Cond Dates	Nov-84
58		
59	**613C5**	
60		

	B	C
61	Report Name/Date	Environmental Assesment of the Texas Eastman Hazardous Waste Incinerator, February, 1985, Prepared by Acurex, Project # 6699, Purchase Order # 144-0078-B-P, Longview, Texas
62	Report Prepare	Acurex Corp
63	Testing Firm	Acurex Corp
64	Cond Descr	Waste Combination 2, Temp: 1800 F
65	Testing Dates	November 12, 1984
66	Cond Dates	Nov-84

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Stack Gas Emissions 1**												
2													
3		Comm	Units	7% O2									
4													
5	**613C10**	**high temp metals, chlorine**				R1		R2		R3		Cond Avg	
6													
7	PM	E1	gr/dscf	y		0.0153		0.0153		0.0133		0.0146	
8	PM (total)	E1	gr/dscf	y		0.0193		0.0618		0.0567		0.0459	
9	CO (RA)	E1	ppmv	y		0.29		0.85		0.11		0.4	
10	NOx		ppmv	n		24.8		25.2		26.9			
11	SO2		ppmv	n		14.59		14.45		10.5			
12	HCl		ug/dscf	n		41.5		34.5		35			
13	Cl2		ug/dscf	n		1.25	nd	0.338	nd	0.28			
14	HF		ug/dscf	n		4.04		3.84		5.17			
15													
16	Antimony		ug/dscf	n		6.79		7.5		6.38			
17	Arsenic		ug/dscf	n		0.349		0.298		0.264			
18	Beryllium		ug/dscf	n		0.719		0.629		0.636			
19	Cadmium		ug/dscf	n		1.01		1.01		1.03			
20	Chromium		ug/dscf	n		9.96		8.04		7.89			
21	Cobalt		ug/dscf	n		0.0575		0.0575		0.051			
22	Lead		ug/dscf	n		12		12.1		11.1			
23	Manganese		ug/dscf	n		0.412		0.0781		0.0733			
24	Mercury		ug/dscf	n		11.3		10.7		9.76			
25	Nickel		ug/dscf	n		13.6		8.19		8			
26	Selenium		ug/dscf	n		1.03		1.04		0.986			
27	Thallium		ug/dscf	n		3.59		3.84		3.27			
28	Vanadium		ug/dscf	n		0.0165		0.0177		0.0176			
29	Chromium(Hex)		ug/dscf	n		1.61		1.04		0.97			
30													
31	Sampling Train	PM, H	E1										
32	Stack Gas Flowrate		dscfm			22100		21600		22200		21966.7	
33	O2		%			11.5		11.3		11.1		11.3	
34	Moisture		%			32.2		33.2		31.5		32.3	
35	Temperature		°F			186		185		186		185.7	
36													
37	Sampling Train	Metals	E2										
38	Stack Gas Flowrate		dscfm			23100		23200		22900		23067	
39	O2		%			11.5		11.3		11.1		11	
40	Moisture		%			33.1		33.2		34.2		34	
41	Temperature		°F			190		190		190		190	
42													
43	HCl	E1	ppmv	y		1.4		1.2		1.2		1.25	
44	Cl2	E1	ppmv	y		0.02	nd	0.006	nd	0.005		0.01	
45	Total Chlorine	E1	ppmv	y		1.47		1.17		1.16		1.3	
46													
47	Antimony	E2	ug/dscm	y		353.6		382.5		318.8		351.6	
48	Arsenic	E2	ug/dscm	y		18.2		15.2		13.2		15.5	
49	Beryllium	E2	ug/dscm	y		37.4		32.1		31.8		33.8	
50	Cadmium	E2	ug/dscm	y		52.6		51.5		51.5		51.9	
51	Chromium	E2	ug/dscm	y		518.7		410.0		394.3		441.0	
52	Cobalt	E2	ug/dscm	y		3.0		2.9		2.5		2.8	
53	Lead	E2	ug/dscm	y		624.9		617.1		554.7		598.9	
54	Manganese	E2	ug/dscm	y		21.5		4.0		3.7		9.7	
55	Mercury	E2	ug/dscm	y		588.4		545.7		487.7		540.6	
56	Nickel	E2	ug/dscm	y		708.2		417.7		399.8		508.5	
57	Selenium	E2	ug/dscm	y		53.6		53.0		49.3		52.0	
58	Thallium	E2	ug/dscm	y		186.9		195.8		163.4		182.1	
59	Vanadium	E2	ug/dscm	y		0.9		0.9		0.9		0.9	
60	Chromium (Hex)	E2	ug/dscm	y		83.8		53.0		48.5		61.8	
61													
62	SVM	E2	ug/dscm	y		677.5		668.6		606.1		650.7	
63	LVM	E2	ug/dscm	y		574.3		457.3		439.2		490.3	
64													
65	**613C11**	**DRE / risk burn**				R1		R2		R3		Cond Avg	
66													
67	PM	E1	gr/dscf	y		0.0102		0.0129		0.0089		0.0107	
68	PM (total)	E1	gr/dscf	y		0.0136		0.0154		0.0102		0.0131	
69	CO (RA)	E1	ppmv	y		-0.34		-0.75		0.12		-0.3	
70	NOx		ppmv	n		9.52		11.79		18.29			
71	SO2		ppmv	n		0.45		1.89		4.33			

	B	C	D	E	F	G	H	I	J	K	L	M	N
72	HCl		ug/dscf	n		11.4		21.8		14.4			
73	Cl2		ug/dscf	n	nd	0.295		0.382		0.401			
74	HF		ug/dscf	n		3.06		2.76		3.23			
75													
76	POHC	Chlorobenzene											
77	POHC Feedrate		lb/hr			33.47		29.99		29.99			
78	Emission Rate	E2	lb/hr		nd	2.00E-05	nd	2.00E-05	nd	2.00E-05			
79	DRE	E2	%		>	99.99994	>	99.99993	>	99.99993			
80													
81	POHC	1,2-Dichlorobenzene											
82	POHC Feedrate		lb/hr			40.03		40		40.04			
83	Emission Rate	E2	lb/hr		nd	1.61E-04	nd	1.40E-04	nd	4.02E-05			
84	DRE	E2	%		>	99.9996	>	99.99965	>	99.9999			
85													
86	Sampling Train	PM, H	E1										
87	Stack Gas Flowrate		dscfm			24900		24200		24700		24600.0	
88	O2		%			13.2		13		13.1		13.1	
89	Moisture		%			27.8		30.6		29.7		29.4	
90	Temperature		°F			185		187		185		185.7	
91													
92	Sampling Train	PCDD	E2										
93	Stack Gas Flowrate		dscfm			24000		24200		24200		24133.3	
94	O2		%			13.2		13		13.1		13.1	
95	Moisture		%			28.4		28.6		27.8		28.3	
96	Temperature		°F			183		184		183		183.3	
97													
98	HCl	E1	ppmv	y		0.5		0.9		0.6		0.68	
99	Cl2	E1	ppmv	y		0.01		0.01		0.01		0.01	
100	Total Chlorine	E1	ppmv	y		0.51		0.95		0.64		0.70	

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 2**											
2												
3												
4	**613C1**					R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0089		0.0086		0.0057		0.0077
7	HCl	E1	ppmv	y	nd	0.2	nd	0.3	nd	0.2	100	0.2
8	Total Cl	E1	ppmv	y		0.2		0.3		0.2	100	0.2
9												
10	Sampling Train	PM/HCl	E1									
11	Stack Gas Flowrate		dscfm			23800.0		23300.0		23700.0		
12	O2		%			11.6		11.2		11.2		
13	Moisture		%			23.0		24.0		23.0		
14	Temperature		°F			190.0		188.0		190.0		
15												
16	Benzene	E1	%			99.906		99.911		99.963		
17	Naphthalene	E1	%			99.999		99.998		99.999		
18	Toluene	E1	%			99.997		99.998		99.9995		
19												
20	**613C2**					R1		R2		R3		Cond Avg
21												
22	PM	E1	gr/dscf	y		0.0064		0.0078		0.0082		0.0075
23	HCl	E1	ppmv	y	nd	0.3	nd	0.3	nd	0.2		0.3
24	Total Cl	E1	ppmv	y		0.3		0.3		0.2	100	0.3
25												
26	Sampling Train	PM/HCl	E1									
27	Stack Gas Flowrate		dscfm			25400.0		25400.0		25700.0		
28	O2		%			12.3		12.0		12.5		
29	Moisture		%			21.0		22.0		22.0		
30	Temperature		°F			181.0		183.0		183.0		
31												
32	Benzene	E1	%					99.87				
33	Naphthalene	E1	%			99.9987		99.9984		99.9991		
34	Toluene	E1	%					99.99941				
35												
36	**613C3**					R1		R2		R3		Cond Avg
37												
38	PM	E1	gr/dscf	y		0.0040		0.0055		0.0082		0.0059
39	HCl	E1	ppmv	y	nd	0.2	nd	0.2	nd	0.2		0.2
40	Total Cl	E1	ppmv	y		0.2		0.2		0.2	100	0.2
41												
42	Sampling Train	PM/HCl	E1									
43	Stack Gas Flowrate		dscfm			23900.0		24000.0		24100.0		
44	O2		%			10.6		10.8		10.8		
45	Moisture		%			27.0		26.0		26.0		
46	Temperature		°F			190.0		193.0		191.0		
47												
48	Benzene	E1	%					99.84		99.961		
49	Naphthalene	E1	%			99.9984		99.9967		99.99913		
50	Toluene	E1	%					99.99909		99.99974		
51												
52	**613C4**					R1		R2		R3		Cond Avg
53												
54	PM	E1	gr/dscf	y		0.0082		0.0111		0.0113		0.0102
55	HCl	E1	ppmv	y	nd	0.2	nd	0.2	nd	0.2		0.2
56	Total Cl	E1	ppmv	y	100	0.2	100	0.2	100	0.2	100	0.2
57												
58	Sampling Train	PM/HCl	E1									
59	Stack Gas Flowrate		dscfm			25400.0		25400.0		25600.0		
60	O2		%			12.5		12.2		12.3		
61	Moisture		%			20.0		21.0		21.0		
62	Temperature		°F			188.0		189.0		185.0		
63												
64	Chlorobenzene	E1	%			99.99923		99.99941		99.9995		
65	Chloroform	E1	%			99.9977		99.99973		99.99977		
66	Toluene	E1	%			99.972		99.9961		99.9986		
67												
68	**613C5**					R1		R2		R3		Cond Avg
69												
70	PM	E1	gr/dscf	y		0.0204		0.0159		0.0124		0.0163
71	HCl	E1	ppmv	y	nd	0.2	nd	0.2	nd	0.2		0.2

	B	C	D	E	F	G	H	I	J	K	L	M
72	Total Cl	E1	ppmv	y	100	0.2	100	0.2	100	0.2	100	0.2
73												
74	Sampling Train	PM/HCl	E1									
75	Stack Gas Flowrate		dscfm			27200.0		27200.0		27600.0		
76	O2		%			12.1		12.2		12.0		
77	Moisture		%			21.0		22.0		22.0		
78	Temperature		°F			183.0		184.0		186.0		
79												
80	Chlorobenzene	E1	%			99.99949		99.99961		99.99973		
81	Chloroform	E1	%			99.99972		99.99977		99.99986		
82	Toluene	E1	%			99.9982		99.99936		99.9992		

	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 1**																									
2																										
3																										
4	**613C10**	**Trial burn**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
5																										
6	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Solid HW		Solid HW		Solid HW	
8	Feed Class 2																									
9	Feedstream Description				Liquid waste		Liquid waste		Liquid waste		Liquid waste		Sludge waste		Sludge waste		Sludge waste		Sludge Waste		Drummed solids		Drummed solids		Drummed solids	
10	Feed Rate		lb/hr		3034		3047		2804				1546		1544		1558				576		514		509	
11	Heating Value		Btu/lb		7512		14317		15964				12147		12202		12241				6781		6894		5802	
12	Thermal Feedrate		MMBtu/hr		22.8		43.6		44.8				18.8		18.8		19.1				3.9		3.5		3.0	
13	Ash		lb/hr		0.45		0.46		0.44				199.4		196.1		201.0				448.7		358.3		355.8	
14	Chlorine		lb/hr		0.266		0.385		0.459				27.98		29.64		35.06				20.9		25.2		39.4	
15	Antimony		lb/hr	nd	0.004750	nd	0.004660	nd	0.004850			nd	0.001330	nd	0.001370	nd	0.001040			nd	0.00036	nd	0.00047	nd	0.00034	
16	Arsenic		lb/hr		0.016690		0.026490		0.024670				0.004080		0.004940		0.005300				0.01280		0.01930		0.01540	
17	Barium		lb/hr		0.001953		0.000724		0.001064				0.000230		0.000116		0.000147				0.05290		0.04140		0.04490	
18	Beryllium		lb/hr		0.000156	nd	0.000198		0.000206				0.000577		0.000247		0.000088				0.00043		0.00056		0.00051	
19	Cadmium		lb/hr	nd	0.000367		0.000622	nd	0.000411				0.000170		0.000054		0.000196				0.00526		0.00634		0.00529	
20	Chromium		lb/hr																							
21	Lead		lb/hr		0.006560		0.007110		0.008400				0.002770		0.003480		0.002630				0.06590		0.07800		0.07000	
22	Mercury		lb/hr		0.000101		0.000093		0.000115				0.000023		0.000049		0.000027				0.000003		0.000001	nd	0.000008	
23	Nickel		lb/hr	nd	0.003116	nd	0.001068	nd	0.003496				0.006740		0.005840		0.007230				501.00000		614.00000		484.00000	
24	Selenium		lb/hr		0.043260		0.047770		0.065880				0.011600		0.015400		0.013900				0.00314		0.00273		0.00292	
25	Silver		lb/hr	nd	0.000483	nd	0.000474	nd	0.000493			nd	0.000136	nd	0.000139	nd	0.000106				0.00011		0.00012		0.00008	
26	Thallium		lb/hr	nd	0.006130	nd	0.006010	nd	0.006250			nd	0.001720	nd	0.001760	nd	0.001340			nd	0.00005	nd	0.00061	nd	0.00043	
27																										
28	Stack Gas Flowrate		dscfm		23100		23200		22900		23067		23100		23200		22900		23067		23100		23200		22900	
29	Oxygen		%		11.5		11.3		11.1		11		11.5		11.3		11.1		11		11.5		11.3		11.1	
30																										
31	Estimated Firing Rate		MMBtu/hr																							
32																										
33	*Feedrate MTEC Calculations*																									
34	Ash		mg/dscm		7.7		7.7		7.3		7.5		3401.2		3261.9		3318.7		3327.3		7653.6		5959.8		5874.6	
35	Chlorine		ug/dscm		4537.2		6402.3		7578.6		6172.7		477263.6		493020.2		578878.5		516387.4		356497.8		419166.9		650536.6	
36	Antimony		ug/dscm		81.0		77.5		80.1		79.5		22.7		22.8		17.2		20.9		6.1		7.9		5.5	
37	Arsenic		ug/dscm		284.7		440.6		407.3		377.5		69.6		82.2		87.5		79.8		218.3		321.0		254.3	
38	Barium		ug/dscm		33.3		12.0		17.6		21.0		3.9		1.9		2.4		2.8		902.3		688.6		741.3	
39	Beryllium		ug/dscm		2.7		3.3		3.4		3.1		9.8		4.1		1.5		5.1		7.2		9.3		8.4	
40	Cadmium		ug/dscm		6.3		10.3		6.8		7.8		2.9		0.9		3.2		2.3		89.7		105.5		87.3	
41	Chromium		ug/dscm		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
42	Lead		ug/dscm		111.9		118.3		138.7		123.0		47.2		57.9		43.4		49.5		1124.1		1297.4		1155.8	
43	Mercury		ug/dscm		1.7		1.5		1.9		1.7		0.4		0.8		0.5		0.6		0.1		0.0		0.1	
44	Nickel		ug/dscm		53.2		17.8		57.7		42.9		115.0		97.1		119.4		110.5		8545713.8		10213035.8		7991363.5	
45	Selenium		ug/dscm		737.9		794.6		1087.8		873.4		197.9		256.2		229.5		227.8		53.6		45.4		48.2	
46	Silver		ug/dscm		8.2		7.9		8.1		8.1		2.3		2.3		1.8		2.1		1.8		1.9		1.4	
47	Thallium		ug/dscm		104.6		100.0		103.2		102.6		29.3		29.3		22.1		26.9		0.8		10.2		7.1	
48	SVM		ug/dscm		118.2		128.6		145.5		130.8		50.1		58.8		46.7		51.9		1213.8		1402.9		1243.1	
49	LVM		ug/dscm		287.4		443.9		410.7		380.7		79.4		86.3		89.0		84.9		225.6		330.4		262.7	
50																										
51																										
52																										
53	**613C11**	**Trial burn**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
54																										
55	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3	
56	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Solid HW		Solid HW		Solid HW	
57	Feed Class 2																									
58	Feedstream Description				Liquid waste		Liquid waste		Liquid waste		Liquid waste		Sludge waste		Sludge waste		Sludge waste		Sludge Waste		Drummed solids		Drummed solids		Drummed solids	
59	Feed Rate		lb/hr		6310		6195		5965				0.0		0.0		0.0				1569		1663		1593	
60	Heating Value		Btu/lb		6462		7291		6966												3093		2863		2774	

	B	AB	AD	AF	AH	AJ	AL	AN	AP	AR	AT	AV	AX	AZ
1	**Feedstream 1**													
2														
3														
4	**613C10**	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg
5														
6	Feedstream Number	F3	F4	F4	F4	F4	F5	F5	F5	F5				
7	Feed Class	Solid HW	Spike	Spike	Spike	Spike	Total	Total	Total	Total				
8	Feed Class 2		Spike	Spike	Spike	Spike	Total	Total	Total	Total	HW	HW	HW	HW
9	Feedstream Description	Drummed solids	Spike	Spike	Spike	Spike	Total	Total	Total	Total				
10	Feed Rate													
11	Heating Value													
12	Thermal Feedrate						45.5	66.0	66.8	59.4				
13	Ash		130	130	130									
14	Chlorine		290.74	300.12	300.21									
15	Antimony		10.07	10.07	10.07									
16	Arsenic		0.2	0.2	0.2									
17	Barium		20.2	20.2	20.2									
18	Beryllium		0.2	0.2	0.2									
19	Cadmium		0.2	0.2	0.2									
20	Chromium		7.43	7.54	7.48									
21	Lead		3.2	3.2	3.2									
22	Mercury		0.1	0.1	0.1									
23	Nickel		107	110.15	111.75									
24	Selenium		0.51	0.51	0.51									
25	Silver		0.51	0.51	0.51									
26	Thallium		1.01	1.01	1.01									
27														
28	Stack Gas Flowrate	23067	23100	23200	22900	23067	23100	23200	22900	23067				
29	Oxygen	11	11.5	11.3	11.1	11	11.5	11.3	11.1	11				
30														
31	Estimated Firing Rate									71.0				
32														
33	*Feedrate MTEC Calculat*													
34	Ash	6496.0	2217.5	2162.4	2146.4	2175.4	13280.0	11391.7	11347.1	12006.2	11062.5	9229.3	9200.6	9830.8
35	Chlorine	475400.5	4959243.2	4992078.7	4956791.8	4969371.2	5797541.9	5910668.1	6193785.6	5967331.8	838298.7	918589.4	1236993.7	997960.6
36	Antimony	6.5	171767.1	167500.4	166266.6	168511.4	171877.0	167608.6	166369.4	168618.3	109.8	108.2	102.8	106.9
37	Arsenic	264.5	3411.5	3326.7	3302.2	3346.8	3984.1	4170.5	4051.3	4068.6	572.6	843.8	749.1	721.8
38	Barium	777.4	344557.7	335998.9	333523.8	338026.8	345497.3	336701.5	334285.2	338828.0	939.6	702.6	761.3	801.2
39	Beryllium	8.3	3411.5	3326.7	3302.2	3346.8	3431.2	3343.4	3315.5	3363.4	19.8	16.7	13.3	16.6
40	Cadmium	94.2	3411.5	3326.7	3302.2	3346.8	3510.3	3443.4	3399.6	3451.1	98.9	116.7	97.4	104.3
41	Chromium	0.0	126735.8	125417.4	123502.9	125218.7	126735.8	125417.4	123502.9	125218.7	0.0	0.0	0.0	0.0
42	Lead	1192.4	54583.4	53227.5	52835.5	53548.8	55866.6	54701.1	54173.4	54913.7	1283.2	1473.6	1337.9	1364.9
43	Mercury	0.1	1705.7	1663.4	1651.1	1673.4	1707.9	1665.7	1653.6	1675.7	2.2	2.4	2.5	2.3
44	Nickel	8916704.4	1825132.5	1832192.0	1845113.4	1834146.0	10371014.4	12045342.7	9836654.0	10751003.7	8545881.9	10213150.7	7991540.6	8916857.7
45	Selenium	49.1	8699.2	8483.1	8420.7	8534.3	9688.6	9579.3	9786.1	9684.7	989.3	1096.2	1365.5	1150.3
46	Silver	1.7	8699.2	8483.1	8420.7	8534.3	8711.6	8495.3	8431.9	8546.3	12.4	12.1	11.3	11.9
47	Thallium	6.0	17227.9	16799.9	16676.2	16901.3	17362.6	16939.4	16808.6	17036.9	134.7	139.4	132.5	135.5
48	SVM	1286.6	57994.9	56554.3	56137.7	56895.6	59377.0	58144.5	57572.9	58364.8	1382.1	1590.3	1435.3	1469.2
49	LVM	272.9	133558.8	132070.9	130107.3	131912.3	134151.1	132931.4	130869.7	132650.7	592.4	860.5	762.4	738.4
50														
51														
52														
53	**613C11**	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg
54														
55	Feedstream Number	F3	F4	F4	F4	F4	F5	F5	F5	F5				
56	Feed Class	Solid HW	Spike	Spike	Spike	Spike	Total	Total	Total	Total				
57	Feed Class 2		Spike	Spike	Spike	Spike	Total	Total	Total	Total	HW	HW	HW	HW
58	Feedstream Description	Drummed solids	Spike	Spike	Spike	Spike	Total	Total	Total	Total				
59	Feed Rate													
60	Heating Value													

	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	Thermal Feedrate		MMBtu/hr		40.8		45.2		41.6												4.9		4.8		4.4	
62	Ash		lb/hr		1.06		1.06		1.62												993.2		1119.2		1070.5	
63	Chlorine		lb/hr		0.95		2.09		0.69												8.7		9.4		9.0	
64																										
65	Stack Gas Flowrate		dscfm		24900		24200		24700												24900		24200		24700	
66	Oxygen		%		13.2		13		13.1												13.2		13		13.1	
67																										
68	Estimated Firing Rate		MMBtu/hr																							
69																										
70	*Feedrate MTEC Calculations*																									
71	Ash		mg/dscm		20.4		20.5		31.1		24.0										19141.6		21639.5		20535.6	
72	Chlorine		ug/dscm		18309.5		40409.8		13236.4		23985.3										167676.2		181747.6		172649.2	

	B	AB	AD	AF	AH	AJ	AL	AN	AP	AR	AT	AV	AX	AZ
61	Thermal Feedrate						45.6	49.9	46.0	47.2				
62	Ash													
63	Chlorine		29.7	28.6	28.6									
64														
65	Stack Gas Flowrate		24900	24200	24700		24900	24200	24700	24600				
66	Oxygen		13.2	13	13.1		13.2	13	13.1	13.1				
67														
68	Estimated Firing Rate						61.66	61.46	61.95	61.70				
69														
70	*Feedrate MTEC Calculat*													
71	Ash	20438.9	0.0	0.0	0.0	0.0	19162.1	21660.0	20566.7	20462.9	19162.1	21660.0	20566.7	20462.9
72	Chlorine	174024.4	571906.5	552433.0	548469.7	557603.1	757892.2	774590.4	734355.4	755612.7	185985.7	222157.4	185885.7	198009.6

	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	A	AB
1	**Feedstream 2**																										
2																											
3																											
4	**613C1**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3
5																											
6	Feedstream Number				F1		F1		F1								F2		F2		F2						
7	Feed Class				Spike		Spike		Spike								Spike		Spike		Spike						
8	Feed Class 2																										
9	Feedstream Description				Liq spike		Liq spike		Liq spike								Solid spike		Solid spike		Solid spike		Solid spike				
10	Feedrate		lb/hr																								
11	Heating value		Btu/lb																								
12	Ash		wt %																								
13	Chlorine		lb/hr		6.248		8.35		7.658								1.896		2.25		2						
14																											
15	Stack gas Flowrate		dscfm		23800		23300		23700		23800		23300		23700		23800		23300		23700		23800		23300		23700
16	Oxygen		%		11.6		11.2		11.2		11.6		11.2		11.2		11.6		11.2		11.2		11.6		11.2		11.2
17																											
18	Estimated Firing Rate		MMBtu/hr																								
19																											
20	Feedrate MTEC																										
21	Chlorine		ug/dscm		104540		136883		123420								31723		36885		32233						
22																											
23	**613C2**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3
24																											
25	Feedstream Number				F1		F1		F1								F2		F2		F2						
26	Feed Class				Spike		Spike		Spike								Spike		Spike		Spike						
27	Feed Class 2																										
28	Feedstream Description				Liq spike		Liq spike		Liq spike		Liq spike						Solid spike		Solid spike		Solid spike		Solid spike		Solid spike		Solid spike
29	Feedrate		lb/hr																								
30	Heating value		Btu/lb																								
31	Ash		wt %																								
32	Chlorine		lb/hr		3.009		6.073		5.443								0.75		1.75		1.5						
33																											
34	Stack gas Flowrate		dscfm		25400		25400		25700		25400		25400		25700		25400		25400		25700		25400		25400		25700
35	Oxygen		%		12.3		12		12.5		12.3		12		12.5		12.3		12		12.5		12.3		12		12.5
36																											
37	Estimated Firing Rate		MMBtu/hr																								
38																											
39	Feedrate MTEC																										
40	Chlorine		ug/dscm		50970		99443		93268								12704		28656		25703						
41																											
42	**613C3**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3
43																											
44	Feedstream Number				F1		F1		F1								F2		F2		F2						
45	Feed Class				Spike		Spike		Spike								Spike		Spike		Spike						
46	Feed Class 2																										
47	Feedstream Description				Liq spike		Liq spike		Liq spike		Liq spike						Solid spike		Solid spike		Solid spike		Solid spike				
48	Feedrate		lb/hr																								
49	Heating value		Btu/lb																								
50	Ash		wt %																								
51	Chlorine		lb/hr		5.89		11.755		8.848								1.4		2.6		2						
52																											
53	Stack gas Flowrate		dscfm		23900		24000		24100		23900		24000		24100		23900		24000		24100		23900		24000		24100
54	Oxygen		%		10.6		10.8		10.8		10.6		10.8		10.8		10.6		10.8		10.8		10.6		10.8		10.8
55																											
56	Estimated Firing Rate		MMBtu/hr																								
57																											
58	Feedrate MTEC																										
59	Chlorine		ug/dscm		88701		179745		134733								21084		39756		30455						
60																											

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	**Feedstream 2**														
2															
3															
4	**613C1**		R1		R2		R3		Cond Avg		R1		R2		R3
5															
6	Feedstream Number		F3		F3		F3		F3						
7	Feed Class		Total		Total		Total		Total						
8	Feed Class 2		Total		Total		Total		Total		Spike		Spike		Spike
9	Feedstream Description		Total		Total		Total		Total						
10	Feedrate														
11	Heating value														
12	Ash														
13	Chlorine														
14															
15	Stack gas Flowrate		23800		23300		23700		23600						
16	Oxygen		11.6		11.2		11.2		11.3						
17															
18	Estimated Firing Rate		71.02		72.49		73.73		72.42						
19															
20	Feedrate MTEC														
21	Chlorine		136263		173768		155654		155228		136263		173768		155654
22															
23	**613C2**		R1		R2		R3		Cond Avg		R1		R2		R3
24															
25	Feedstream Number		F3		F3		F3		F3						
26	Feed Class		Total		Total		Total		Total						
27	Feed Class 2		Total		Total		Total		Total		Spike		Spike		Spike
28	Feedstream Description		Total		Total		Total		Total						
29	Feedrate														
30	Heating value														
31	Ash														
32	Chlorine														
33															
34	Stack gas Flowrate		25400		25400		25700		25500						
35	Oxygen		12.3		12		12.5		12.3						
36															
37	Estimated Firing Rate		70.15		72.57		69.35		70.70						
38															
39	Feedrate MTEC														
40	Chlorine		63675		128098		118971		103581.3		63675		128098		118971
41															
42	**613C3**		R1		R2		R3		Cond Avg		R1		R2		R3
43															
44	Feedstream Number		F3		F3		F3		F3						
45	Feed Class		Total		Total		Total		Total						
46	Feed Class 2		Total		Total		Total		Total		Spike		Spike		Spike
47	Feedstream Description		Total		Total		Total		Total						
48	Feedrate														
49	Heating value														
50	Ash														
51	Chlorine														
52															
53	Stack gas Flowrate		23900		24000		24100		24000						
54	Oxygen		10.6		10.8		10.8		10.7						
55															
56	Estimated Firing Rate		78.91		77.71		78.04		78.22						
57															
58	Feedrate MTEC														
59	Chlorine		109785		219502		165188		164825		109785		219502		165188
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	A	AB
61	**613C4**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3
62																											
63	Feedstream Number										F1		F1		F1		F1						F2		F2		F2
64	Feed Class										Spike		Spike		Spike		Spike						Spike		Spike		Spike
65	Feed Class 2																										
66	Feedstream Description				Liq spike						Liq spike		Liq spike		Liq spike		Liq spike						Solid spike		Solid spike		Solid spike
67	Feedrate		lb/hr																								
68	Heating value		Btu/lb																								
69	Ash		wt %																								
70	Chlorine		lb/hr								81.2		84.4		83.9								2.752		2.52		2.52
71																											
72	Stack gas Flowrate		dscfm		25400		25400		25600		25400		25400		25600		25400		25400		25600		25400		25400		25600
73	Oxygen		%		12.5		12.2		12.3		12.5		12.2		12.3		12.5		12.2		12.3		12.5		12.2		12.3
74																											
75	Estimated Firing Rate		MMBtu/hr																								
76																											
77	Feedrate MTEC																										
78	Chlorine		ug/dscm								1408452.1		1413155.4		1409760.72								47713.57852		42201.73972		42353.32643
79																											
80																											
81	**613C5**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3
82																											
83	Feedstream Number										F1		F1		F1								F2		F2		F2
84	Feed Class										Spike		Spike		Spike								Spike		Spike		Spike
85	Feed Class 2																										
86	Feedstream Description				Liq spike						Liq spike		Liq spike		Liq spike								Solid spike		Solid spike		Solid spike
87	Feedrate		lb/hr																								
88	Heating value		Btu/lb																								
89	Ash		wt %																								
90	Chlorine		lb/hr								114.5		151.8		118.9								2.128		3.06		2.34
91																											
92	Stack gas Flowrate		dscfm		27200		27200		27600		27200		27200		27600		27200		27200		27600		27200		27200		27600
93	Oxygen		%		12.1		12.2		12		12.1		12.2		12		12.1		12.2		12		12.1		12.2		12
94																											
95	Estimated Firing Rate		MMBtu/hr																								
96																											
97	Feedrate MTEC																										
98	Chlorine		ug/dscm								1770224.3		2374547.3		1791444.7								32905		47854		35262

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
61	**613C4**		R1		R2		R3		Cond Avg		R1		R2		R3
62															
63	Feedstream Number		F3		F3		F3		F3						
64	Feed Class		Total		Total		Total		Total						
65	Feed Class 2		Total		Total		Total		Total		Spike		Spike		Spike
66	Feedstream Description		Total		Total		Total		Total						
67	Feedrate														
68	Heating value														
69	Ash														
70	Chlorine														
71															
72	Stack gas Flowrate		25400		25400		25600		25467						
73	Oxygen		12.5		12.2		12.3		12.3						
74															
75	Estimated Firing Rate		68.54		70.96		70.70		70.07						
76															
77	Feedrate MTEC														
78	Chlorine		1456165.71		1455357.1		1452114		1454546		1456165.7		1455357.1		1452114
79															
80															
81	**613C5**		R1		R2		R3		Cond Avg		R1		R2		R3
82															
83	Feedstream Number		F3		F3		F3		F3						
84	Feed Class		Total		Total		Total		Total						
85	Feed Class 2		Total		Total		Total		Total		Spike		Spike		Spike
86	Feedstream Description		Total		Total		Total		Total						
87	Feedrate														
88	Heating value														
89	Ash														
90	Chlorine														
91															
92	Stack gas Flowrate		27200		27200		27600		27333.3						
93	Oxygen		12.1		12.2		12		12.1						
94															
95	Estimated Firing Rate		76.9		76.0		78.9		77.2						
96															
97	Feedrate MTEC														
98	Chlorine		1803129		2422401		1826707		2017412		1803129.1		2422401		1826707

	B	C	D	E	F	G
1	**Process Information**					
2						
3	**613C10**			R1	R2	R3
4						
5	Kiln Temperature	^{o}F		1480	1480	1520
6	SCC Temperature	^{o}F		2125	2160	2175
7	Scrubber Pressure Drop	in. H2O		42	42	41
8	Scrubber pH	pH		6.95	6.95	6.9
9	Scrubber Liquor Flow	gpm		300	300	300
10	Quench Inlet Temperature	^{o}F		595	590	570
11						
12	**613C11**			R1	R2	R3
13						
14	Kiln Temperature	^{o}F		1270	1250	1245
15	SCC Temperature	^{o}F		1690	1710	1710
16	Scrubber Pressure Drop	in. H2O		40	40	40
17	Scrubber pH	pH		6.85	6.8	6.6
18	Scrubber Liquor Flow	gpm		300	300	300
19	Quench Inlet Temperature	^{o}F		550	548	549

	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:		613C11															
5	Condition/Test Date:		DRE / risk burn, Sept 23, 1998															
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 (pg)																	
11		2,3,7,8-TCDD	1		50	50.00	50.00	50.00		49	49.00	49.00	49.00		49	49	49	49
12		Total TCDD	0		1400	0	1400	0		1300	0.00	1300	0.00		1700	0	1700	0
13		1,2,3,7,8-PCDD	0.5		210	105.00	210.00	105.00		200	100.00	200.00	100.00		210	105	210	105
14		Total PCDD	0		2900	0	2900	0		2600	0.00	2600	0.00		3400	0	3400	0
15		1,2,3,4,7,8-HxCDD	0.1		220	22.00	220.00	22.00		200	20.00	200.00	20.00		200	20	200	20
16		1,2,3,6,7,8-HxCDD	0.1		490	49.00	490.00	49.00		450	45.00	450.00	45.00		460	46	460	46
17		1,2,3,7,8,9-HxCDD	0.1		430	43.00	430.00	43.00		380	38.00	380.00	38.00		390	39	390	39
18		Total HxCDD	0		5200	0	5200	0		4600	0.00	4600	0.00		5200	0	5200	0
19		1,2,3,4,6,7,8-HpCDD	0.01		1700	17.00	1700.00	17.00		1600	16.00	1600.00	16.00		1500	15	1500	15
20		Total HpCDD	0		3400	0	3400	0		3100	0.00	3100	0.00		3000	0	3000	0
21		OCDD	0.001		1300	1.30	1300.00	1.30		1300	1.30	1300	1.30		1100	1	1100	1
22		2,3,7,8-TCDF	0.1		610	61.00	610.00	61.00		550	55.00	550	55.00		620	62	620	62
23		Total TCDF	0		15000	0	15000	0		12000	0.00	12000	0.00		17000	0	17000	0
24		1,2,3,7,8-PCDF	0.05		910	46	910	46		920	46.00	920	46.00		880	44	880	44
25		2,3,4,7,8-PCDF	0.5		2500	1250	2500	1250		2500	1250.00	2500	1250.00		2500	1250	2500	1250
26		Total PCDF	0		22000	0	22000	0		20000	0.00	20000	0.00		24000	0	24000	0
27		1,2,3,4,7,8-HxCDF	0.1		1700	170	1700	170		1700	170.00	1700	170.00		1500	150	1500	150
28		1,2,3,6,7,8-HxCDF	0.1		1500	150	1500	150		1500	150.00	1500	150.00		1400	140	1400	140
29		2,3,4,6,7,8-HxCDF	0.1		3800	380	3800	380		4200	420.00	4200	420.00		3200	320	3200	320
30		1,2,3,7,8,9-HxCDF	0.1		600	60	600	60		760	76.00	760	76.00		460	46	460	46
31		Total HxCDF	0		19000	0	19000	0		19000	0.00	19000	0.00		17000	0	17000	0
32		1,2,3,4,6,7,8-HpCDF	0.01		5600	56	5600	56		5600	56.00	5600	56.00		5200	52	5200	52
33		1,2,3,4,7,8,9-HpCDF	0.01		700	7	700	7		940	9.40	940	9.40		570	6	570	6
34		Total HpCDF	0		9200	0	9200	0		10000	0.00	10000	0.00		8000	0	8000	0
35		OCDF	0.001		1400	1	1400	1		1800	1.80	1800	1.80		1100	1	1100	1
36																		
37		Gas sample volume (dscf)				119.61	119.61	119.61			119.75	119.75	119.75			119.85	119.85	119.85
38		O2 (%)				13.2	13.2	13.2			13	13	13			13.1	13.1	13.1
39																		
40		PCDD/PCDF (ng in sample)				2.47	80.8	2.47			2.504	75.7	2.504			2.35	81.5	2.35
41		PCDD/PCDF (ng/dscm @ 7% O2)		0.0		1.31	42.84	1.31	0.0		1.29	39.09	1.29	0.0		1.23	42.58	1.23
42																		
43		TEQ Cond Avg	1.28															
44		Total Cond Avg	41.51															