

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase II ID No.	854
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.	RCRA BIF Unit (Halogen Acid Furnace)
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	HCl Production Furnace
13	Combustor Type	
14	Combustor Characteristics	T-Thermal Model # 5-02-3825-D oxidizer furnace, 30 MMBtu/hr; no energy recovery features; no waste heat boiler.
15	Capacity (MMBtu/hr)	30
16	Soot Blowing	No, this unit does not have soot blowing capacity
17	APCS Detailed Acronym	QT/ABS/WS
18	APCS General Class	WQ, LEWS
19	APCS Characteristics	HCl quench tank / primary absorber / secondary caustic scrubber column; 18-19% HCl product in primary abosrber column, Cl2 and residual HCl removed in the final absorber/scrubber column
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid hazardous waste
22	Supplemental Fuel	Natural gas, process gases (vent gases)
23		
24	Stack Characteristics	
25	Diameter (ft)	2.0
26	Height (ft)	63
27	Gas Velocity (ft/sec)	44.1
28	Gas Temperature (°F)	187
29		
30	Permitting Status	Adjusted BIF Tier I for all metals
31	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Cond Description</b>	
2		
3	<b>854C1</b>	
4		
5	Report Name/Date	Trial Burn Report for Texas Eastman Hydrochloric Acid Recovery Unit, October 22, 1998
6	Report Prepare	Radian International
7	Testing Firm	Radian International
8	Testing Dates	June 17, 1998
9	Cond Dates	Jun-98
10	Cond Description	Trial burn, worst case for organics destruction
11	Content	PM, CO, HCl/Cl <sub>2</sub> , POHC DRE, PCDD/PCDF, other organics
12		
13	<b>854C2</b>	
14		
15	Report Name/Date	BIF Certification of Compliance for Eastman Chemical Co, Texas Eastman Division, September, 1996
16	Report Prepare	Radian International
17	Testing Firm	Radian International
18	Testing Dates	September 26, 1996
19	Cond Dates	Sep-96
20	Cond Description	CoC, max waste, metals, Cl, prod rate
21	Content	PM, CO, HCl/Cl <sub>2</sub>

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2												
3		Comr Units		7% O2								
4												
5												
6	<b>854C1</b>					R1	R2	R3		Cond Avg		
7												
8	PM	E1	gr/dscf	y		0.00043	0.00082	0.00075		0.00067		
9	CO (MHRA)	E1	ppmv	y		15	12	11		12.7		
10	HCl		µg/dscf	n		1570	1370	1420		1453.3		
11	Cl2		µg/dscf	n		3860	3650	4020		3843.3		
12												
13	POHC DRE		Chlorobenzene									
14	POHC Feedrate		lb/hr			14.87	15	15.08				
15	Emissions Rate											
16	DRE		%			99.99991	99.99988	99.99997				
17												
18	Sampling Train		PM, T E1									
19	Stack Gas Flowrate		dscfm			2630	2810	2980		2806.7		
20	O2		%			5.9	5.9	5.8		5.9		
21	Moisture		%			59.0	58.7	57.6		58.4		
22	Temperature		°F			187	187	187		187.0		
23												
24	HCl	E1	ppmv	y		33.9	29.6	30.5		31.3		
25	Cl2	E1	ppmv	y		42.2	39.9	43.6		41.9		
26	Total Chlorine	E1	ppmv	y		118.2	109.3	117.7		115.1		
27												
28	<b>854C2</b>					R1	R2	R3		Cond Avg		
29												
30	PM	E1	gr/dscf	y		0.0035	0.0022	0.0001		0.0019		
31	CO (MHRA)	E1	ppmv	y		10	2	0		4.0		
32	CO (RA)	E1	ppmv	y		6	5	1		4.0		
33	HCl		g/hr			170	169	149		163		
34	Cl2		g/hr			1083	1057	20		720		
35												
36	Sampling Train		HCl/CE1									
37	Stack Gas Flowrate		dscfm			2901	3174	3051		3042		
38	O2		%			5.2	8.3	4.9		6.1		
39	Moisture		%			62.5	60.6	60.0		61.0		
40	Temperature		°F			191	190	189		190		
41												
42	HCl	E1	ppmv	y		20.4	23.1	16.7		19.8		
43	Cl2	E1	ppmv	y		66.9	74.2	1.2		45.1		
44	Total Chlorine	E1	ppmv	y		154.2	171.6	19.0		110.0		

	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	Feedstreams																									
2																										
3																										
4	854C1				R1		R2		R3		Cond Avg		R1		R2		R3	Cond Avg		R1		R2		R3		
5					F1		F1		F1		F1		F2		F2		F2									
6	Feedstream Number				Liq HW		Liq HW		Liq HW		Liq HW		Misc. Fuel		Misc. Fuel		Misc. Fuel									
7	Feed Class				HW		HW		HW		HW		MF		MF		MF									
8	Feed Class 2				Liq waste		Liq waste		Liq waste		Liq waste		Vent Gas		Vent Gas		Vent Gas									
9	Feedstream Description				4001		4089		4106		4065.0		13440		13920		13440									
10	Feed Rate	lb/hr																								
11	Feed Rate	scfh			1300		1100		1200		1150		13440		13920		13440									
12	Heat Content	Btu/lb			0.4001		0.4089	nd	0.4106		0.40		2630.0		2810.0		2980.0									
13	Heat Content	Btu/dscf			799.6		817.2		819.4		813		28.70		32.48		26.73									
14	Ash	lb/hr			2630		2810		2980		2806.7		2630.0		2810.0		2980.0									
15	Chlorine	lb/hr			5.9		5.9		5.8		5.9		5.9		5.9		5.8									
16																										
17	Stack Gas Flowrate	dscfm			5.2		4.5		4.9		4.7		1.3		1.3		1.3									
18	O2	%																								
19																										
20	Thermal Feedrate	MMBtu/hr																								
21	Estimated Firing Rate	MMBtu/hr																								
22																										
23	Feedrate MTEC Calculations																									
24	Ash	mg/dscm			100		36.1	100	33.9	100	35.9		2705071		2865005		2208689									
25	Chlorine	ug/dscm			75364059		72090990		67713215		71627162		2705071		2865005		2208689									
26																										
27																										
28	854C2				R1		R2		R3		Cond Avg		R1		R2		R3	Cond Avg		R1		R2		R3		
29					F1		F1		F1		F1		F2		F2		F2									
30	Feedstream Number				Liq HW		Liq HW		Liq HW		Liq HW		Misc. Fuel		Misc. Fuel		Misc. Fuel									
31	Feed Class				HW		HW		HW		HW		NG		NG		NG									
32	Feed Class 2				Liq waste		Liq waste		Liq waste		Liq waste		Vent Gas		Vent Gas		Vent Gas									
33	Feedstream Description				4322		4378		4316		4338.00		103		105		100									
34	Feed Rate	lb/hr																								
35	Feed Rate	scfm			1.16		1.16		1.16		1.16		103		105		103									
36	Density	g/cm3			8.877		9.56		9.589		9.30		6.34		6.46		6.16									
37	Thermal Feedrate	MMBtu/hr			2054		2184		2222		2144		2705071		2865005		2208689									
38	Heating Value	Btu/lb			157		159		157		157		2705071		2865005		2208689									
39	Ash	g/hr			325424		347487		322995		331969		2705071		2865005		2208689									
40	Chlorine	g/hr			0.288		0.294		0.288		0.29		2705071		2865005		2208689									
41	Arsenic	g/hr			0.008		0.009		0.008		0.008		2705071		2865005		2208689									
42	Beryllium	g/hr			0.019		0.02		0.019		0.019		2705071		2865005		2208689									
43	Cadmium	g/hr			0.271		0.079		0.078		0.143		2705071		2865005		2208689									
44	Chromium	g/hr			0.463		0.471		0.464		0.466		2705071		2865005		2208689									
45	Antimony	g/hr			0.056		0.057		0.056		0.056		2705071		2865005		2208689									
46	Barium	g/hr			0.124		0.126		0.125		0.125		2705071		2865005		2208689									
47	Lead	g/hr			0.000323		0.000328		0.000323		0.000323		2705071		2865005		2208689									
48	Mercury	g/hr			0.181		0.183		0.18		0.182		2705071		2865005		2208689									
49	Silver	g/hr			0.465		0.473		0.466		0.468		2705071		2865005		2208689									
50	Thallium	g/hr																								
51																										
52	Stack Gas Flowrate	dscfm			2901		3174		3051		3042															
53	O2	%			5.2		8.3		4.9		6.1															
54																										
55	Estimated Firing Rate	MMBtu/hr																								
56																										
57	Feedrate MTEC Calculations																									

	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
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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
58	Ash	mg/dscm		28.2	32.5			26.4		28.6										28.2		32.5		26.4	
59	Chlorine	µg/dscm		58537627	71075229			54214826		60522189										58537627		71075229		54214826	
60	Arsenic	µg/dscm		51.8	60.1			48.3		52.9										51.8		60.1		48.3	
61	Beryllium	µg/dscm		1.4	1.8			1.3		1.5										1.4		1.8		1.3	
62	Cadmium	µg/dscm		3.4	4.1			3.2		3.5										3.4		4.1		3.2	
63	Chromium	µg/dscm		48.7	16.2			13.1		26.0										48.7		16.2		13.1	
64	Antimony	µg/dscm		83.3	96.3			77.9		85.0										83.3		96.3		77.9	
65	Barium	µg/dscm		10.1	11.7			9.4		10.3										10.1		11.7		9.4	
66	Lead	µg/dscm		22.3	25.8			21.0		22.8										22.3		25.8		21.0	
67	Mercury	µg/dscm		0.1	0.1			0.1		0.1										0.1		0.1		0.1	
68	Silver	µg/dscm		32.6	37.4			30.2		33.2										32.6		37.4		30.2	
69	Thallium	µg/dscm		83.6	96.7			78.2		85.3										83.6		96.7		78.2	
70	SVM	µg/dscm		25.7	29.9			24.2		26.3										25.7		29.9		24.2	
71	LVM	µg/dscm		102.0	78.1			62.8		80.4										102.0		78.1		62.8	
72																									
73	<b>BIF Feedrate Limits</b>																								
74	Antimony	g/hr								1386															
75	Arsenic	g/hr								1															
76	Barium	g/hr								291600															
77	Beryllium	g/hr								0.04															
78	Cadmium	g/hr								0.72															
79	Chromium	g/hr								0.3															
80	Lead	g/hr								497															
81	Mercury	g/hr								461															
82	Silver	g/hr								17460															
83	Thallium	g/hr								2836															

	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
58	28.6																
59	60522189																
60	52.9																
61	1.5																
62	3.5																
63	26.0																
64	85.0																
65	10.3																
66	22.8																
67	0.1																
68	33.2																
69	85.3																
70	26.3																
71	80.4																
72																	
73																	
74																	
75																	
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80																	
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82																	
83																	



	A	B	C	D	E	F
1	<b>Process Information</b>					
2						
3		Units	Run	Run	Run	Avg
4			1	2	3	
5						
6	<b>854C1</b>					
7						
8	Comb Temp	°F	1798	1798	1798	1798
9	HCl Prod Rate	lb/min	16.1	16.3	16.5	16.3
10	Wet Scrubber Operation					
11	L/G Ratio		1.7	1.7	1.7	1.7
12	Blowdown rate	gpm	3.4	2.7	2.7	2.9
13	pH	pH	7.2	7.3	7.2	7.2
14						
15	<b>854C2</b>					
16						
17	Comb Temp	°F	1828	1817	1817	1821
18	HCl Prod Rate	lb/min	18.0	18.9	18.8	18.6
19	Wet Scrubber Operation					
20	L/G Ratio		1.4	1.8	1.3	1.5
21	Blowdown rate	gpm	5.0	2.3	1.7	3.0
22	pH	pH	6.6	6.5	7.8	7.0

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:	Texas Eastman, HAF															
4	Condition ID:	854C1															
5	Condition/Test Date:	Trial burn, worst case for organic destruction June 17, 1998															
6																	
7	854C1	I-TEF															
8		Wght Fact															
9																	
10	Detected in sample volume (pg)																
11	2,3,7,8-TCDD	1	nd	8.6	8.6	4.3	4.3	nd	5.6	5.6	2.8	2.8	nd	5.9	5.9	3.0	3.0
12	TCDD Other	0		161	0.0	161.4	0.0		104.4	0.0	104.4	0.0		124.1	0.0	124.1	0.0
13	1,2,3,7,8-PCDD	0.5		38	19.0	38.0	19.0		31	15.5	31.0	15.5		24	12.0	24.0	12.0
14	PCDD Other	0		612	0.0	612.0	0.0		409	0.0	409.0	0.0		346	0.0	346.0	0.0
15	1,2,3,4,7,8-HxCDD	0.1		58	5.8	58.0	5.8		38	3.8	38.0	3.8		38	3.8	38.0	3.8
16	1,2,3,6,7,8-HxCDD	0.1		220	22.0	220.0	22.0		180	18.0	180.0	18.0		150	15.0	150.0	15.0
17	1,2,3,7,8,9-HxCDD	0.1		120	12.0	120.0	12.0		96	9.6	96.0	9.6		78	7.8	78.0	7.8
18	HxCDD Other	0		1102	0.0	1102.0	0.0		786	0.0	786.0	0.0		714	0.0	714.0	0.0
19	1,2,3,4,6,7,8-HpCDD	0.01		840	8.4	840.0	8.4		660	6.6	660.0	6.6		650	6.5	650.0	6.5
20	HpCDD Other	0		560	0.0	560.0	0.0		440	0.0	440.0	0.0		450	0.0	450.0	0.0
21	OCDD	0.001		1200	1.2	1200.0	1.2		970	1.0	970.0	1.0		920	0.9	920.0	0.9
22	2,3,7,8-TCDF	0.1		170	17.0	170.0	17.0		100	10.0	100.0	10.0		84	8.4	84.0	8.4
23	TCDF Other	0		2530	0.0	2530.0	0.0		1800	0.0	1800.0	0.0		1316	0.0	1316.0	0.0
24	1,2,3,7,8-PCDF	0.05		380	19.0	380.0	19.0		250	12.5	250.0	12.5		200	10.0	200.0	10.0
25	2,3,4,7,8-PCDF	0.5		450	225.0	450.0	225.0		290	145.0	290.0	145.0		230	115.0	230.0	115.0
26	PCDF Other	0		3070	0.0	3070.0	0.0		1960	0.0	1960.0	0.0		1570	0.0	1570.0	0.0
27	1,2,3,4,7,8-HxCDF	0.1		1200	120.0	1200.0	120.0		790	79.0	790.0	79.0		660	66.0	660.0	66.0
28	1,2,3,6,7,8-HxCDF	0.1		780	78.0	780.0	78.0		530	53.0	530.0	53.0		440	44.0	440.0	44.0
29	2,3,4,6,7,8-HxCDF	0.1		670	67.0	670.0	67.0		440	44.0	440.0	44.0		380	38.0	380.0	38.0
30	1,2,3,7,8,9-HxCDF	0.1		370	37.0	370.0	37.0		260	26.0	260.0	26.0		250	25.0	250.0	25.0
31	HxCDF Other	0		2780	0.0	2780.0	0.0		1880	0.0	1880.0	0.0		1570	0.0	1570.0	0.0
32	1,2,3,4,6,7,8-HpCDF	0.01		3800	38.0	3800.0	38.0		2600	26.0	2600.0	26.0		2200	22.0	2200.0	22.0
33	1,2,3,4,7,8,9-HpCDF	0.01		1000	10.0	1000.0	10.0		830	8.3	830.0	8.3		780	7.8	780.0	7.8
34	HpCDF Other	0		1700	0.0	1700.0	0.0		1370	0.0	1370.0	0.0		1120	0.0	1120.0	0.0
35	OCDF	0.001		7000	7.0	7000.0	7.0		6000	6.0	6000.0	6.0		5800	5.8	5800.0	5.8
36																	
37	Gas sample volume (dscf)				112.3	112.3	112.3								119.3	119.3	119.3
38	O2 (%)				5.90	5.90	5.90								5.80	5.80	5.80
39																	
40	PCDD/PCDF (ng in sample)				0.695	30.816	0.691								0.394	20.097	0.391
41	PCDD/PCDF (ng/dscm @ 7% O2)		1.2		0.20	8.99	0.20	1.2							0.11	5.48	0.11
42																	
43	TEQ Cond Avg																
44	Total Cond Avg																