

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase II ID No.	232
4	EPA ID No.	TXD001700806
5	Facility Name	Solutia (Chocolate Bayou Plant)
6	Facility Location	
7	City	Alvin
8	State	TX
9	Unit ID Name/No.	Boiler 30H5
10	Other Sister Facilities	Boiler 31H4 (identical) Testing was done on one boiler; unclear which one
11	Number of Sister Facilities	1
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid-fired
14	Combustor Characteristics	3 chamber John Zink forced draft furnace, produces 184,000 lb/hr of steam @ 1,250 psig (1.8 trillion Btu/yr)
15	Capacity (MMBtu/hr)	600
16	Soot Blowing	None
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	
20	Hazardous Wastes	Liq
21	Haz Waste Description	By-product hydrogen cyanide (HCN) from Acrylonitrile process
22	Supplemental Fuel	Natural gas
23		vent gas (propane)
24		
25	Stack Characteristics	
26	Diameter (ft)	
27	Height (ft)	
28	Gas Velocity (ft/sec)	65.3
29	Gas Temperature (°F)	299
30		
31	Permitting Status	Tier IA for metals and chloride
32	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Cond Description</b>	
2		
3	<b>232C10</b>	
4		
5	Report Name/Date	Trial Burn Report, Acrylonitrile Boiler Solutia Chocolate Bayou Plant
6	Report Prepare	Focus Environmental
7	Testing Firm	ENSR of Acton, Mass. & Maxim Corp. of Houston TX
8	Testing Dates	September 22-25, 1997
9	Cond Dates	Sep-97
10	Condition Descr	Trial burn; low temp "worst-case" organic destruction
11	Content	DRE for HCN; PM, HCl/Cl <sub>2</sub> , CO, PCDD/PCDF, PICs emissions; metals, ash, chlorine, HCN in feedstreams
12		
13	<b>232C11</b>	
14		
15	Report Name/Date	Trial Burn Report, Acrylonitrile Boiler Solutia Chocolate Bayou Plant
16	Report Prepare	Focus Environmental
17	Testing Firm	ENSR of Acton, Mass. & Maxim Corp. of Houston TX
18	Testing Dates	September 22-25, 1997
19	Cond Dates	Sep-97
20	Condition Descr	Trial burn; max waste feed, max prod rate
21	Content	DRE for HCN; PM, HCl/Cl <sub>2</sub> , CO, metals, PCDD/PCDF, PICs emissions; metals, ash, chlorine, HCN in feedstreams
22		
23	<b>232C12</b>	
24		
25	Report Name/Date	Trial Burn Report, Acrylonitrile Boiler Solutia Chocolate Bayou Plant
26	Report Prepare	Focus Environmental
27	Testing Firm	ENSR of Acton, Mass. & Maxim Corp. of Houston TX
28	Testing Dates	December 16-17, 1997
29	Cond Dates	Dec-97
30	Condition Descr	Trial burn; low temp "worst-case" organic destruction
31	Content	DRE for HCN; CO emissions; metals, ash, chlorine, HCN in feedstreams
32		
33	<b>232C13</b>	
34		
35	Report Name/Date	Trial Burn Report, Acrylonitrile Boiler Solutia Chocolate Bayou Plant
36	Report Prepare	Focus Environmental
37	Testing Firm	ENSR of Acton, Mass. & Maxim Corp. of Houston TX
38	Testing Dates	December 16-17, 1997
39	Cond Dates	Dec-97
40	Condition Descr	Trial burn; low temp "worst-case" organic destruction
41	Content	DRE for HCN; CO emissions; metals, ash, chlorine, HCN in feedstreams

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2												
3		Comments	Units	7% O2								
4												
5												
6	<b>232C10</b>					R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0018		0.0015		0.0021		0.0018
9	CO (RA)	E1	ppmv	y		17		19.5		16.5		17.7
10	HCl		ppmv	n		0.09		0.04		0.07		0.07
11	Cl2		ppmv	n		0.02		0.00		0.00		0.01
12												
13	Sampling Train	PM	E1									
14	Stack Gas Flowrate		dscfm			119709		119784		119590		119694
15	O2		%			6		6.07		6.2		6.09
16	Moisture		%			9.8		9.7		10.8		10.1
17	Temperature		°F			300		300.9		301.1		301
18												
19	HCl	E1	ppmv	y		0.080		0.041		0.062		0.061
20	Cl2	E1	ppmv	y		0.021		0.001		0.002		0.008
21	Total Chlorine	E1	ppmv	y		0.12		0.04		0.07		0.08
22												
23	Sampling Train	CARB 426	E2									
24	Stack Gas Flowrate		dscfm			125552		118524		118625		120900
25	O2		%			6		6.07		6.2		6.1
26	Moisture		%			9.6		10.2		10.2		10.0
27	Temperature		°F			298		299		300		299
28												
29	POHC DRE	Hydrogen Cyanide										
30	POHC Feedrate		lb/hr			4693		4683		4693		
31	Emissions Rate	E2										
32	DRE	E2	%			99.9511		99.9523		99.9678		
33												
34	Particle size distribution	in microns				100 wt% > 10.4 um						
35												
36	<b>232C11</b>					R1		R2		R3		Cond Avg
37												
38	PM	E1	gr/dscf	y		0.00099		0.0011		0.001		0.0010
39	CO (RA)	E1	ppmv	y		0		0		0		0.0
40	HCl		ppmv	n		0.053		0.005		0.007		0.022
41	Cl2		ppmv	n		0.002		0.002		0.002		0.002
42												
43	POHC DRE	Hydrogen Cyanide										
44	POHC Feedrate		lb/hr			4524		4534		4534		
45	Emissions Rate											
46	DRE	E3	%			99.99939		99.99926		99.999374		
47												
48	Antimony		µg/dscm	n	nd	3.8	nd	3.5	nd	3.9		
49	Arsenic		µg/dscm	n	nd	1.0	nd	1.0	nd	1.0		
50	Barium		µg/dscm	n		6.1		6.0		4.9		
51	Beryllium		µg/dscm	n	nd	0.1	nd	0.1	nd	0.1		
52	Cadmium		µg/dscm	n	nd	0.1	nd	0.1	nd	0.1		
53	Chromium		µg/dscm	n		6.7		7.0		7.1		
54	Chromium (Hex)		µg/dscm	n		0.4		0.3		0.4		
55	Lead		µg/dscm	n	nd	0.7	nd	2.2	nd	1.1		
56	Mercury		µg/dscm	n	nd	2.8	nd	2.8	nd	3.1		
57	Silver		µg/dscm	n	nd	0.2	nd	0.2	nd	0.2		
58												
59	Sampling Train	PM, HCl/Cl2	E1									
60	Stack Gas Flowrate		dscfm			123551		119688		119587		120942
61	O2		%			6.13		7.33		5.47		6.3
62	Moisture		%			9.7		9.9		9.7		9.8
63	Temperature		°F			294.8		294.3		293.7		294.3
64												
65	Sampling Train	Metals	E2									
66	Stack Gas Flowrate		dscfm			119392		117791		118846		118676
67	O2		%			6.13		7.33		5.47		6.3
68	Moisture		%			9.7		9.4		9.2		9.4
69	Temperature		°F			295		295		295		295
70												
71	Sampling Train	CARB 426	E3									

	B	C	D	E	F	G	H	I	J	K	L	M
72	Stack Gas Flowrate		dscfm			122791		121288		118906		120995
73	O2		%			6.13		7.33		5.47		6.3
74	Moisture		%			9.7		9.9		9.7		9.8
75	Temperature		°F			295		294		294		294
76												
77	HCl	E1	ppmv	y		0.050		0.005		0.006		0.021
78	Cl2	E1	ppmv	y		0.001		0.002		0.002		0.002
79	Total Chlorine	E1	ppmv	y		0.053		0.009		0.010		0.024
80												
81												
82	Antimony	E2	µg/dscm	y	nd	3.6	nd	3.6	nd	3.5	100	3.6
83	Arsenic	E2	µg/dscm	y	nd	1.0	nd	1.0	nd	0.9	100	1.0
84	Barium	E2	µg/dscm	y		5.7		6.2		4.5		5.4
85	Beryllium	E2	µg/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.1
86	Cadmium	E2	µg/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.1
87	Chromium	E2	µg/dscm	y		6.3		7.1		6.4		6.6
88	Chromium (Hex)	E2	µg/dscm	y		0.3		0.3		0.3		0.3
89	Lead	E2	µg/dscm	y	nd	0.7	nd	2.2	nd	1.0	100	1.3
90	Mercury	E2	µg/dscm	y	nd	2.7	nd	2.8	nd	2.7	100	2.8
91	Silver	E2	µg/dscm	y	nd	0.2	nd	0.2	nd	0.2	100	0.2
92												
93	SVM	E2	µg/dscm	y	100	0.8	100	2.4	100	1.2	100	1.4
94	LVM	E2	µg/dscm	y	15	7.4	14	8.3	14	7.4	14	7.7
95												
96	Particle size distribution		in microns					65 wt% > 13.1 um				
97								24 wt% between 0.75 - 1.2 um				
98												
99	<b>232C12</b>					R1		R2		R3		Cond Avg
100												
101	CO (RA)	E1	ppmv	y		0.5		0		0		0.2
102												
103	Sampling Train		CARB 426 E1									
104	Stack Gas Flowrate		dscfm			111047		111476		114868		112464
105	O2		%			5.6		5.1		5.8		5.5
106	Moisture		%			11.4		12.1		12.1		11.9
107	Temperature		°F			300		299		301		300
108												
109	POHC DRE		Hydrogen Cyanide									
110	POHC Feedrate		lb/hr			4485		4485		4475		
111	Emissions Rate											
112	DRE	E1	%			99.99658		99.99514		99.99757		
113												
114	Particle size distribution		in microns					29 wt% > 12.9 um				
115								35 wt% between 8.1 - 12.9 um				
116								29 wt% between 5.4 - 8.1 um				
117												
118	<b>232C13</b>					R1		R2		R3		Cond Avg
119												
120	CO (RA)	E1	ppmv	y		1.5		1.5		1.5		1.5
121												
122	Sampling Train		CARB 426 E1									
123	Stack Gas Flowrate		dscfm			112133		111788		110655		111525
124	O2		%			5.9		5.7		5.5		5.7
125	Moisture		%			11.9		11.6		11.7		11.7
126	Temperature		°F			301		300		300		300
127												
128	POHC Feedrate		lb/hr			11425		12444		12514		
129	POHC DRE		Hydrogen Cyanide									
130	Emissions Rate											
131	DRE	E1	%			99.999998		99.999998		99.999998		

	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	AB	AC	
<b>Feedstreams</b>																													
232C10			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg												
Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		Total		Total		Total		Total		Total		Total	
Feed Class		Liq HW		Liq HW		Liq HW		Liq HW		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total	
Feed Class 2		HW		HW		HW		HW		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total	
Feedstream Description		HCN waste		HCN waste		HCN waste		HCN waste		Total		Total		Total		Total		Total		Total		Total		Total		Total		Total	
Feed Rate	g/hr	2,128,516		2,154,026		2,128,516		2,127,020																					
Heating Value	Btu/lb	10,615		10,615		10,615		10,615																					
Viscosity	cSt	0.2		0.2		0.2		0.2																					
Ash	g/hr	32		32		32		32																					
Chlorine	g/hr	nd	1540	nd	1530	nd	1540		1540																				
Antimony	g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																				
Arsenic	g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																				
Barium	g/hr	nd	3.07	nd	3.07	nd	3.07		3.07																				
Beryllium	g/hr	nd	0.92	nd	0.92	nd	0.92		0.92																				
Cadmium	g/hr	nd	3.07	nd	3.07	nd	3.07		3.07																				
Chromium	g/hr	nd	3.07	nd	3.07	nd	3.07		3.07																				
Lead	g/hr	nd	3.07	nd	3.07	nd	3.07		3.07																				
Mercury	g/hr	nd	0.03	nd	0.03	nd	0.03		0.03																				
Silver	g/hr	nd	0.62	nd	0.62	nd	0.62		0.62																				
Thallium	g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																				
Stack Gas Flowrate	dscfm		119709		119784		119590		119694.3																				
Oxygen	%		6		6.07		6.2		6.09																				
Thermal Feedrate	MMBtu/hr		49.8		50.4		49.8		49.7		49.8		50.4		49.8		49.8		49.7										
Estimated Firing Rate	MMBtu/hr										570.0		567.7		561.9		566.6												
<i>Feedrate MTEC Calculations</i>																													
Ash	mg/dscm		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1										
Chlorine	ug/dscm	100	7071.2	100	7053.8	100	7173.9	100	7114.8	100	7071.2	##	7053.8	100	7173.9	100	7114.8												
Antimony	ug/dscm	100	0.6	100	0.6	100	0.6	100	0.6	100	0.6	##	0.6	100	0.6	100	0.6												
Arsenic	ug/dscm	100	0.6	100	0.6	100	0.6	100	0.6	100	0.6	##	0.6	100	0.6	100	0.6												
Barium	ug/dscm	100	14.1	100	14.2	100	14.3	100	14.2	100	14.1	##	14.2	100	14.3	100	14.2												
Beryllium	ug/dscm	100	4.2	100	4.2	100	4.3	100	4.3	100	4.2	##	4.2	100	4.3	100	4.3												
Cadmium	ug/dscm	100	14.1	100	14.2	100	14.3	100	14.2	100	14.1	##	14.2	100	14.3	100	14.2												
Chromium	ug/dscm	100	14.1	100	14.2	100	14.3	100	14.2	100	14.1	##	14.2	100	14.3	100	14.2												
Lead	ug/dscm	100	14.1	100	14.2	100	14.3	100	14.2	100	14.1	##	14.2	100	14.3	100	14.2												
Mercury	ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	##	0.1	100	0.1	100	0.1												
Silver	ug/dscm	100	2.8	100	2.9	100	2.9	100	2.9	100	2.8	##	2.9	100	2.9	100	2.9												
Thallium	ug/dscm	100	0.6	100	0.6	100	0.6	100	0.6	100	0.6	##	0.6	100	0.6	100	0.6												
SVM	ug/dscm	100	14.1	100	14.2	100	14.3	100	14.2	100	14.1	##	14.2	100	14.3	100	14.2												
LVM	ug/dscm	100	9.4	100	9.5	100	9.6	100	9.5	100	9.4	##	9.5	100	9.6	100	9.5												
232C11			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg				
Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3		F3		F3		F3	
Feed Class		Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total	
Feed Class 2		HW		HW		HW		HW		Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total	
Feedstream Description		HCN waste		HCN waste		HCN waste		HCN waste		Spike		Spike		Spike		Spike		Spike		Total		Total		Total		Total		Total	
Feed Rate	g/hr	5,182,084		5,644,610		5,676,044		5,500,913		7,893		7,893		7,439		7,741													
Heating Value	Btu/lb	10,615		10,615		10,615		10,615																					
Ash	g/hr	1200		1200		1100		83		1,134		1,134		1,089		1,115													
Chlorine	g/hr	nd	3740	nd	4080	nd	4100		3970																				
Antimony	g/hr	nd	0.3	nd	0.32	nd	0.33		0.32																				
Arsenic	g/hr	nd	0.3	nd	0.32	nd	0.33		0.32																				

	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	AB	AC		
1	Barium		g/hr	nd	7.49	nd	8.15	nd	8.2		7.95																			
2	Beryllium		g/hr	nd	2.3	nd	2.5	nd	2.5		2.4																			
3	Cadmium		g/hr	nd	7.49	nd	8.15	nd	8.2		7.95																			
4	Chromium		g/hr	nd	7.49	nd	8.15	nd	8.2		7.95																			
5	Lead		g/hr	nd	7.49	nd	8.15	nd	8.2		7.95																			
6	Mercury		g/hr	nd	0.073	nd	0.08	nd	0.08		0.078																			
7	Silver		g/hr	nd	1.5	nd	1.7	nd	1.7		1.6																			
8	Thallium		g/hr	nd	0.3	nd	0.32	nd	0.33		0.32																			
9																														
0	Stack Gas Flowrate		dscfm		123,551		119,688		119,587		120,942																			
1	Oxygen		%		6.13		7.33		5.47		6.31																			
2																														
3	Thermal Feedrate		MMBtu/hr		121.2		132.0		132.7		128.6											121.2		132.0		132.7		128.6		
4	Estimated Firing Rate		MMBtu/hr																									564.0		
5																														
6	<i>Feedrate MTEC Calculations</i>																													
7	Ash		mg/dscm		5.4		6.0		4.9		0.4											5.2		10.5		11.8		9.7		10.7
8	Chlorine		ug/dscm	100	16,784	100	20,560	100	18,202	100	18,424											100		16,784	100	20,560	100	18,202	100	18,516
9	Antimony		ug/dscm	100	1.3	100	1.6	100	1.5	100	1.5											100		1.3	100	1.6	100	1.5	100	1.5
0	Arsenic		ug/dscm	100	1.3	100	1.6	100	1.5	100	1.5											100		1.3	100	1.6	100	1.5	100	1.5
1	Barium		ug/dscm	100	33.6	100	41.1	100	36.4	100	36.9											100		33.6	100	41.1	100	36.4	100	36.9
2	Beryllium		ug/dscm	100	10.3	100	12.6	100	11.1	100	11.1											100		10.3	100	12.6	100	11.1	100	11.1
3	Cadmium		ug/dscm	100	33.6	100	41.1	100	36.4	100	36.9											100		33.6	100	41.1	100	36.4	100	36.9
4	Chromium		ug/dscm	100	33.6	100	41.1	100	36.4	100	36.9											100		33.6	100	41.1	100	36.4	100	36.9
5	Lead		ug/dscm	100	33.6	100	41.1	100	36.4	100	36.9											100		33.6	100	41.1	100	36.4	100	36.9
6	Mercury		ug/dscm	100	0.3	100	0.4	100	0.4	100	0.4											100		0.3	100	0.4	100	0.4	100	0.4
7	Silver		ug/dscm	100	6.7	100	8.6	100	7.5	100	7.4											100		6.7	100	8.6	100	7.5	100	7.4
8	Thallium		ug/dscm	100	1.3	100	1.6	100	1.5	100	1.5											100		1.3	100	1.6	100	1.5	100	1.5
9																														
0	SVM		ug/dscm	100	33.6	100	41.1	100	36.4	100	37.0											100		33.6	100	41.1	100	36.4	100	37.0
1	LVM		ug/dscm	100	22.6	100	27.6	100	24.5	100	49.5											100		22.6	100	27.6	100	24.5	100	24.9
2																														
3	<b>232C12</b>				R1		R2		R3		Cond Avg						R1		R2		R3		Cond Avg							
4																														
5	Feedstream Number				F1		F1		F1		F1						F2		F2		F2		F2							
6	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW						Total		Total		Total		Total							
7	Feed Class 2				HW		HW		HW		HW						Total		Total		Total		Total							
8	Feedstream Description				HCN waste		HCN waste		HCN waste		HCN waste						Total		Total		Total		Total							
9	Feed Rate		g/hr		2052177		2056668		2056668		2055171																			
0	Heating Value		Btu/lb		10615		10615		10615		10615																			
1	Ash		g/hr		31		31		31		31																			
2	Chlorine		g/hr	nd	1480	nd	1490	nd	1490		1486.7																			
3	Antimony		g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																			
4	Arsenic		g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																			
5	Barium		g/hr	nd	2.96	nd	2.97	nd	2.97		2.97																			
6	Beryllium		g/hr	nd	0.89	nd	0.89	nd	0.89		0.89																			
7	Cadmium		g/hr	nd	2.96	nd	2.97	nd	2.97		2.97																			
8	Chromium		g/hr	nd	2.96	nd	2.97	nd	2.97		2.97																			
9	Lead		g/hr	nd	2.96	nd	2.97	nd	2.97		2.97																			
0	Mercury		g/hr	nd	0.029	nd	0.029	nd	0.029		0.029																			
1	Silver		g/hr	nd	0.6	nd	0.6	nd	0.6		0.6																			
2	Thallium		g/hr	nd	0.12	nd	0.12	nd	0.12		0.12																			
3																														
4	Stack Gas Flowrate		dscfm		111047		111476		114868		112463.7																			
5	Oxygen		%		5.6		5.1		5.8		5.5																			
6																														
7	Thermal Feedrate		MMBtu/hr		48.0		48.1		48.1		48.1						48.0		48.1		48.1		48.1							
8	Estimated Firing Rate		MMBtu/hr														542.9		562.7		554.3		553.4							
9																														
0	<i>Feedrate MTEC Calculations</i>																													





	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	AB	AC		
31																														
32	<b>BIF Feedrate Limits</b>																													
33																														
34	Antimony		g/hr			15429																								
35	Arsenic		g/hr			118																								
36	Barium		g/hr		2571000																									
37	Beryllium		g/hr			216																								
38	Cadmium		g/hr			288																								
39	Chromium		g/hr			43																								
40	Lead		g/hr			4629																								
41	Mercury		g/hr			4114																								
42	Silver		g/hr			154300																								
43	Thallium		g/hr			15429																								
44	Chlorine		g/hr			20570																								

	A	B	C	D	E
1	<b>Process Information</b>				
2			Run 1	Run 2	Run 3
3	<b>232C10</b>				
4					
5	Combustion Chamber Temp	°F	1450	1450	1450
6	Combustion Air Flowrate	kscfm	53.1	53	53
7	Hydrogen Cyanide Feedrate	kscfh	4.74	4.73	4.74
8	Absorber Overhead Vent	klb/hr	271.6	271.2	271.3
9	Natural Gas Feedrate	kscfh	73.1	74.4	74.5
10					
11	<b>232C11</b>				
12			Run 1	Run 2	Run 3
13	Combustion Chamber Temp	°F	1700	1700	1700
14	Combustion Air Flowrate	kscfm	53	53	53
15	Hydrogen Cyanide Feedrate	kscfh	11.54	12.57	12.64
16	Absorber Overhead Vent	klb/hr	270.8	269.7	269.5
17	Natural Gas Feedrate	kscfh	57.8	47.2	46.6
18	Production Rate -- BFW Feedrate	klb/hr	181.8	181	181.3
19					
20	<b>232C12</b>				
21			Run 1	Run 2	Run 3
22	Combustion Chamber Temp	°F	1590	1590	1590
23	Combustion Air Flowrate	kscfm	57	56.9	57
24	Hydrogen Cyanide Feedrate	kscfh	4.57	4.58	4.58
25	Absorber Overhead Vent	klb/hr	260.6	262.1	263
26	Natural Gas Feedrate	kscfh	125.9	127.2	126.7
27					
28	<b>232C13</b>				
29			Run 1	Run 2	Run 3
30	Combustion Chamber Temp	°F	1540	1540	1540
31	Combustion Air Flowrate	kscfm	57.1	56.3	55.9
32	Hydrogen Cyanide Feedrate	kscfh	4.53	4.53	4.52
33	Absorber Overhead Vent	klb/hr	259.9	259.1	260.7
34	Natural Gas Feedrate	kscfh	118	114.8	114.1

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1	<b>PCDD/PCDF</b>																	
2	N																	
3	Facility Name and ID:		Solutia, Alvin, TX															
4	Condition IDs:		232C10															
5	Condition/Test Date:		Sep-97															
6																		
7	<b>232C10</b>	I-TEF	Run 1				Run 2				Run 3							
8		Wght Fact	Total	TEQ	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	Full ND	Full ND		
10	Detected in sample volume (ng)																	
11	2,3,7,8-TCDD	1	nd	0.0100	0.0100	0.0050	0.0050	nd	0.0100	0.0100	0.005	0.0050	nd	0.0200	0.0200	0.01	0.0100	
12	TCDD Total	0	nd	0.0100	0.0000	0.0050	0.0000	nd	0.0100	0.0000	0.005	0.0000	nd	0.0200	0.0000	0.01	0.0000	
13	1,2,3,7,8-PCDD	0.5	nd	0.0200	0.0100	0.0100	0.0050	nd	0.0200	0.0100	0.01	0.0050	nd	0.0300	0.0150	0.015	0.0075	
14	PCDD Total	0	nd	0.0200	0.0000	0.0100	0.0000	nd	0.0200	0.0000	0.01	0.0000	nd	0.0300	0.0000	0.015	0.0000	
15	1,2,3,4,7,8-HxCDD	0.1	nd	0.0600	0.0060	0.0300	0.0030	nd	0.0300	0.0030	0.015	0.0015	nd	0.0500	0.0050	0.025	0.0025	
16	1,2,3,6,7,8-HxCDD	0.1	nd	0.0500	0.0050	0.0250	0.0025	nd	0.0200	0.0020	0.01	0.0010	nd	0.0400	0.0040	0.02	0.0020	
17	1,2,3,7,8,9-HxCDD	0.1	nd	0.0500	0.0050	0.0250	0.0025	nd	0.0200	0.0020	0.01	0.0010	nd	0.0400	0.0040	0.02	0.0020	
18	HxCDD Total	0	nd	0.0500	0.0000	0.0250	0.0000	nd	0.0300	0.0000	0.015	0.0000	nd	0.0400	0.0000	0.02	0.0000	
19	1,2,3,4,6,7,8-HpCDD	0.01	nd	0.1000	0.0010	0.0500	0.0005	nd	0.0600	0.0006	0.03	0.0003	nd	0.0600	0.0006	0.03	0.0003	
20	HpCDD Total	0	nd	0.1000	0.0000	0.0500	0.0000	nd	0.0600	0.0000	0.03	0.0000	nd	0.0600	0.0000	0.03	0.0000	
21	OCDD	0.001		0.1000	0.0001	0.1000	0.0001		0.0800	0.0001	0.08	0.0001		0.1000	0.0001	0.1	0.0001	
22	2,3,7,8-TCDF	0.1	nd	0.0100	0.0010	0.0050	0.0005	nd	0.0090	0.0009	0.0045	0.0005	nd	0.0100	0.0010	0.005	0.0005	
23	TCDF Total	0	nd	0.0100	0.0000	0.0050	0.0000	nd	0.0090	0.0000	0.0045	0.0000	nd	0.0100	0.0000	0.005	0.0000	
24	1,2,3,7,8-PCDF	0.05	nd	0.0100	0.0005	0.0050	0.0003	nd	0.0100	0.0005	0.005	0.0003	nd	0.0200	0.0010	0.01	0.0005	
25	2,3,4,7,8-PCDF	0.5	nd	0.0100	0.0050	0.0050	0.0025	nd	0.0100	0.0050	0.005	0.0025	nd	0.0200	0.0100	0.01	0.0050	
26	PCDF Total	0	nd	0.0100	0.0000	0.0050	0.0000	nd	0.0100	0.0000	0.005	0.0000	nd	0.0200	0.0000	0.01	0.0000	
27	1,2,3,4,7,8-HxCDF	0.1	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0200	0.0020	0.01	0.0010	nd	0.0300	0.0030	0.015	0.0015	
28	1,2,3,6,7,8-HxCDF	0.1	nd	0.0300	0.0030	0.0150	0.0015	nd	0.0200	0.0020	0.01	0.0010	nd	0.0200	0.0020	0.01	0.0010	
29	2,3,4,6,7,8-HxCDF	0.1	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0200	0.0020	0.01	0.0010	nd	0.0300	0.0030	0.015	0.0015	
30	1,2,3,7,8,9-HxCDF	0.1	nd	0.0500	0.0050	0.0250	0.0025	nd	0.0200	0.0020	0.01	0.0010	nd	0.0300	0.0030	0.015	0.0015	
31	HxCDF Total	0	nd	0.0400	0.0000	0.0200	0.0000		0.0300	0.0000	0.03	0.0000	nd	0.0300	0.0000	0.015	0.0000	
32	1,2,3,4,6,7,8-HpCDF	0.01	nd	0.1000	0.0010	0.0500	0.0005	nd	0.0600	0.0006	0.03	0.0003	nd	0.0400	0.0004	0.02	0.0002	
33	1,2,3,4,7,8,9-HpCDF	0.01	nd	0.0200	0.0002	0.0100	0.0001	nd	0.0800	0.0008	0.04	0.0004	nd	0.0500	0.0005	0.025	0.0003	
34	HpCDF Total	0	nd	0.1000	0.0000	0.0500	0.0000	nd	0.0700	0.0000	0.035	0.0000	nd	0.0400	0.0000	0.02	0.0000	
35	OCDF	0.001	nd	0.0600	0.00006	0.0300	0.00003	nd	0.0300	0.0000	0.015	0.0000	nd	0.0700	0.0001	0.035	0.0000	
36																		
37	Gas sample volume (dscf)			94.51	94.51	94.51	94.51		88.89	88.89	88.89	88.89		137.07	137.07	137.07	137.07	
38	O2 (%)			6.00	6.00	6.00	6.00		6.10	6.10	6.10	6.10		6.20	6.20	6.20	6.20	
39																		
40	PCDD/PCDF (ng in sample)			0.5000	0.0609	0.3000	0.0305		0.3490	0.0435	0.2295	0.0218		0.4200	0.0727	0.2600	0.0364	
41	PCDD/PCDF (ng/dscm @ 7% O2)			99.8	0.1745	0.0212	0.1047		0.0106	99.8	0.1304	0.0163	0.0857	0.0081	99.9	0.1024	0.0177	0.0634
42																		
43	TEQ Cond Avg		0.0092															
44	Total Cond Avg		0.0846															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1	<b>PCDD/PCDF</b>																		
2	N																		
3	Facility Name and ID:		Solutia, Alvin, TX																
4	Condition IDs:		232C11																
5	Condition/Test Date:		Sep-97																
6																			
7	<b>232C11</b>		I-TEF		Run 1				Run 2				Run 3						
8			Wght Fact		Total	TEQ	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	Full ND	Full ND	1/2 ND
10	Detected in sample volume (ng)																		
11	2,3,7,8-TCDD		1	nd	0.0030	0.0030	0.0015	0.0015	nd	0.0050	0.0050	0.0025	0.0025	nd	0.0010	0.00100	0.0005	0.00050	
12	TCDD Total		0	nd	0.0030	0.0000	0.0015	0.0000	nd	0.0050	0.0000	0.0025	0.0000	nd	0.0010	0.00000	0.0005	0.00000	
13	1,2,3,7,8-PCDD		0.5	nd	0.0050	0.0025	0.0025	0.0013	nd	0.0080	0.0040	0.004	0.0020	nd	0.0020	0.00100	0.001	0.00050	
14	PCDD Total		0	nd	0.0050	0.0000	0.0025	0.0000	nd	0.0080	0.0000	0.004	0.0000	nd	0.0020	0.00000	0.001	0.00000	
15	1,2,3,4,7,8-HxCDD		0.1	nd	0.0060	0.0006	0.0030	0.0003	nd	0.0100	0.0010	0.005	0.0005	nd	0.0040	0.00040	0.002	0.00020	
16	1,2,3,6,7,8-HxCDD		0.1	nd	0.0050	0.0005	0.0025	0.0003	nd	0.0090	0.0009	0.0045	0.0005	nd	0.0030	0.00030	0.0015	0.00015	
17	1,2,3,7,8,9-HxCDD		0.1	nd	0.0050	0.0005	0.0025	0.0003	nd	0.0100	0.0010	0.005	0.0005	nd	0.0030	0.00030	0.0015	0.00015	
18	HxCDD Total		0	nd	0.0050	0.0000	0.0025	0.0000	nd	0.0100	0.0000	0.005	0.0000	nd	0.0030	0.00000	0.0015	0.00000	
19	1,2,3,4,6,7,8-HpCDD		0.01	nd	0.0070	0.0001	0.0035	0.0000	nd	0.0100	0.0001	0.005	0.0001		0.0100	0.00010	0.01	0.00010	
20	HpCDD Total		0	nd	0.0070	0.0000	0.0035	0.0000	nd	0.0100	0.0000	0.005	0.0000		0.0100	0.00000	0.01	0.00000	
21	OCDD		0.001		0.0800	0.0001	0.0800	0.0001		0.0800	0.0001	0.08	0.0001		0.0800	0.00008	0.08	0.00008	
22	2,3,7,8-TCDF		0.1	nd	0.0100	0.0010	0.0050	0.0005	nd	0.0040	0.0004	0.002	0.0002	nd	0.0100	0.00100	0.005	0.00050	
23	TCDF Total		0	nd	0.0100	0.0000	0.0050	0.0000	nd	0.0040	0.0000	0.002	0.0000		0.0100	0.00000	0.01	0.00000	
24	1,2,3,7,8-PCDF		0.05	nd	0.0030	0.0002	0.0015	0.0001	nd	0.0050	0.0003	0.0025	0.0001	nd	0.0020	0.00010	0.001	0.00005	
25	2,3,4,7,8-PCDF		0.5	nd	0.0030	0.0015	0.0015	0.0008	nd	0.0050	0.0025	0.0025	0.0013	nd	0.0020	0.00100	0.001	0.00050	
26	PCDF Total		0	nd	0.0030	0.0000	0.0015	0.0000	nd	0.0050	0.0000	0.0025	0.0000	nd	0.0020	0.00000	0.001	0.00000	
27	1,2,3,4,7,8-HxCDF		0.1	nd	0.0040	0.0004	0.0020	0.0002	nd	0.0070	0.0007	0.0035	0.0004	nd	0.0020	0.00020	0.001	0.00010	
28	1,2,3,6,7,8-HxCDF		0.1	nd	0.0030	0.0003	0.0015	0.0002	nd	0.0050	0.0005	0.0025	0.0003	nd	0.0020	0.00020	0.001	0.00010	
29	2,3,4,6,7,8-HxCDF		0.1		0.0090	0.0009	0.0090	0.0009	nd	0.0060	0.0006	0.0030	0.0003		0.0080	0.00080	0.0080	0.00080	
30	1,2,3,7,8,9-HxCDF		0.1	nd	0.0040	0.0004	0.0020	0.0002	nd	0.0070	0.0007	0.0035	0.0004	nd	0.0020	0.00020	0.0010	0.00010	
31	HxCDF Total		0		0.0090	0.000000	0.0090	0.000000	nd	0.0060	0.0000	0.0030	0.0000		0.0100	0.00000	0.0100	0.00000	
32	1,2,3,4,6,7,8-HpCDF		0.01	nd	0.0040	0.000040	0.0020	0.000020	nd	0.0070	0.0001	0.0035	0.0000	nd	0.0020	0.00002	0.0010	0.00001	
33	1,2,3,4,7,8,9-HpCDF		0.01	nd	0.0050	0.000050	0.0025	0.000025	nd	0.0090	0.0001	0.0045	0.0000	nd	0.0030	0.00003	0.0015	0.00002	
34	HpCDF Total		0	nd	0.0050	0.000000	0.0025	0.000000	nd	0.0080	0.0000	0.0040	0.0000	nd	0.0020	0.00000	0.0010	0.00000	
35	OCDF		0.001	nd	0.0080	0.000008	0.0040	0.000004	nd	0.0200	0.0000	0.0100	0.0000		0.0200	0.00002	0.0200	0.00002	
36																			
37	Gas sample volume (dscf)				140.6	140.6	140.6	140.6		136.4	136.4	136.4	136.4		141.1	141.1	141.1	141.1	
38	O2 (%)				6.1	6.1	6.1	6.1		7.3	7.3	7.3	7.3		5.5	5.5	5.5	5.5	
39																			
40	PCDD/PCDF (ng in sample)				0.135	0.012	0.112	0.006		0.156	0.018	0.118	0.009		0.140	0.007	0.135	0.004	
41	PCDD/PCDF (ng/dscm @ 7% O2)				91.8	0.0319	0.0028	0.0265	0.0015	99.6	0.0413	0.0047	0.0312	0.0024	85.2	0.0317	0.0015	0.0305	0.0009
42																			
43	TEQ Cond Avg		0.0016																
44	Total Cond Avg		0.0294																