

US EPA ARCHIVE DOCUMENT

	A	B
1	Source Description	
2		
3	Phase II ID No.	1008
4	EPA ID No.	TXD008097487
5	Facility Name	Arch Chemicals, Inc. (Olin)
6	Facility Location	
7	City	Beaumont
8	State	TX
9	Unit ID Name/No.	Sulfuric acid regeneration furnace
10	Other Sister Facilities	None
11	Combustor	Sulfuric Acid Recovery Furnace
12	Combustor Characteristics	McKee Furnace, horizontal, cylindrical comb chamber, 50 ft l, 16 ft diam, 130 MMBtu/hr, preheated comb air and oxygen Deltak water tube boiler, 62000 lb/hr steam @ 600 psig and 680F
13	Capacity (MMBtu/hr)	200
14	Soot Blowing	Every 2 hours
15	APCS	WHB/QT/DT/SO3CONV/ABS/WS/DM (Waste heat boiler, quench tower, drying tower, SO3 converter, absorbing tower, SO2 scrubber and high-efficiency mist eliminator)
16	APCS Characteristics	
17	Hazardous Wastes	Liq
18	Haz Waste Description	Waste derived fuels
19	Supplemental Fuel	Natural gas
20		
21	Stack Characteristics	
22	Diameter (ft)	3.92
23	Height (ft)	
24	Gas Velocity (ft/sec)	71.4
25	Gas Temperature (°F)	141
26		
27	Permitting Status	Adjusted Tier I for Sb, Ba, Pb, Hg, Ag, & Tl; Tier III for As, Be, Cd, & Cr and chlorine/chloride emission limits
28	HWC Burn Status (Date if Terminated)	

	A	B
1	Condition Description	
2		
3	1008C1	
4		
5	Report Name/Date	Compliance Test Report - BIF Recertification of Compliance - Beaumont, Texas Facility; Aug, 1998
6	Report Prepar	Focus Environmental, Inc, METCO
7	Testing Dates	May 12, 1998
8	Cond. Description	CoC; max feedrate, production rate, comb temp
9	Content	PM, HCl/Cl ₂ , metals, CO emissions; metals, chlorine, and ash in feeds (As, Be, Cd, Cr, ash spiked)
10		
11	1008C2	
12		
13	Report Name/Date	Compliance Test Report - BIF Recertification of Compliance - Beaumont, Texas Facility; Aug, 1998
14	Report Prepar	Focus Environmental, Inc, METCO
15	Testing Dates	May 13, 1998
16	Cond. Description	CoC; min combustion temperature
17	Content	CO emissions

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3	Cond ID	Comments	Units	7% O2								
4												
5						Sootblow	Sootblow	Sootblow				
6	1008C1	(Max feeds)				R1	R2	R3				Cond Avg
7												
8	PM		gr/dscf	y		0.00173	0.00104	0.000955				0.0012
9	CO (MHRA)		ppmv	y		8.63	8.49	4.92				7.3
10	HCl		mg/dscm	n	nd	0.049	nd	0.054	nd	0.061		
11	Cl2		mg/dscm	n	nd	0.036	nd	0.036	nd	0.041		
12												
13												
14	Sampling Train	PM, HCl/Cl2										
15	Stack Gas Flowrate		dscfm			42000	42131	42172				42101
16	O2		%			10.6	10.8	10.5				10.63
17	Moisture		%			4.88	4.26	4.27				4.5
18	Temperature		°F			140	142	142				141.3
19												
20	HCl		ppmv	y	100	0.04	100	0.05	100	0.05	100	0.049
21	Cl2		ppmv	y	100	0.02	100	0.02	100	0.02	100	0.017
22	Total Chlorine		ppmv	y	100	0.08	100	0.08	100	0.09	100	0.084
23												
24	Sampling Train	Metals										
25	Stack Gas Flowrate		dscfm			41740	42297	41918				41985
26	O2		%			10.6	10.8	10.5				10.6
27	Moisture		%			4.06	4.12	4.55				4.2
28	Temperature		°F			143	145	145				144.0
29												
30	Mercury		µg/dscm	n	nd	2.91	nd	2.98	nd	2.91		
31	Lead		µg/dscm	n	nd	18.3	nd	17.8	nd	18.3		
32	Cadmium		µg/dscm	n	nd	0.24	nd	0.24	nd	0.23		
33	Arsenic		µg/dscm	n	nd	14.3	nd	14	nd	13.7		
34	Beryllium		µg/dscm	n	nd	0.24	nd	0.24	nd	0.24		
35	Chromium		µg/dscm	n	nd	1.74		2.4	nd	1.7		
36	Antimony		µg/dscm	n		85		13.9		13.9		
37												
38	Mercury		µg/dscm	y	100	3.9	100	4.1	100	3.9	100	4.0
39	Lead		µg/dscm	y	100	24.6	100	24.4	100	24.4	100	24.5
40	Cadmium		µg/dscm	y	100	0.3	100	0.3	100	0.3	100	0.3
41	Arsenic		µg/dscm	y	100	19.3	100	19.2	100	18.3	100	18.9
42	Beryllium		µg/dscm	y	100	0.3	100	0.3	100	0.3	100	0.3
43	Chromium		µg/dscm	y	100	2.3		3.3	100	2.3	58	2.6
44	Antimony		µg/dscm	y		114.4		19.1		18.5		50.7
45												
46	SVM		µg/dscm	y	100	25.0	100	24.8	100	24.7	100	24.81
47	LVM		µg/dscm	y	100	21.9	86	22.8	100	20.9	95	21.87
48												
49	1008C2	(Min temperature)				R1	R2	R3				Cond Avg
50												
51	CO (MHRA)		ppmv	y		2.81		3.14		3.46		3.1

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Feedstreams												
2													
3													
4	1008C1				Cond Avg		Cond Avg		Cond Avg		Cond Avg		Cond Avg
5													
6	Feed Class 2				HW		Spike		RM		RM		Total
7	Feedstream Description				Waste		Spike		Sulfur		Spent Acid		Total
8	Feed Rate		lb/hr		3282		305		11425		48900		
9	Feed Rate		gpm						12.7		56		
10	Heat Content		Btu/lb		9000						1200		
11	Ash		lb/hr		0.83		82.9				8.12		
12	Total Cl		lb/hr		1		80.7				11.96		
13	Mercury		lb/hr	nd	0.0001				100		0.002		
14	Lead		lb/hr	nd	0.03				100		0.49		
15	Cadmium		lb/hr	nd	0.002		4.7		100		0.02		
16	Arsenic		lb/hr	nd	0.10		4.7		100		1.47		
17	Beryllium		lb/hr	nd	0.002		0.9		100		0.02		
18	Chromium		lb/hr	nd	0.003		4.7		100		0.05		
19	Antimony		lb/hr	nd	0.020				100		0.29		
20													
21													
22	Stack Gas Flowrate		dscfm		42101.0		42101.0				42101.0		
23	O2		%		10.6		10.6				10.6		
24													
25	Thermal Feedrate		M2 Btu/hr		29.54				45.7		58.68		133.9
26	Estimated Firing Rate		M2 Btu/hr										145.0
27													
28	<i>Feedrate MTEC Calculations</i>												
29	Ash		mg/dscm		7.1		710.0				69.5		787
30	Chlorine		µg/dscm		10711		691921				102486		805118
31	Mercury		µg/dscm	100	1				100		17	100	18
32	Lead		µg/dscm	100	257				100		4199	100	4456
33	Cadmium		µg/dscm	100	17		39903		100		171	0.5	40092
34	Arsenic		µg/dscm	100	857		39903		100		12596	25	53357
35	Beryllium		µg/dscm	100	17		7426		100		171	2	7615
36	Chromium		µg/dscm	100	26		39903		100		428	1	40357
37	Antimony		µg/dscm	100	171				100		2485	100	2656
38													
39	SVM		µg/dscm	100	274.2		39903		100		4370.2	10	44548
40	LVM		µg/dscm	100	899.7		87233		100		12767.9	14	100900
41													
42													
43	BIF Feedrate Limits												
44													
45	Antimony		g/hr		1706								
46	Arsenic		g/hr		2116								
47	Barium		g/hr		129,844								
48	Beryllium		g/hr		390								
49	Cadmium		g/hr		2116								
50	Chromium		g/hr		2116								
51	Lead		g/hr		513								
52	Mercury		g/hr		453.6								
53	Silver		g/hr		7809								
54	Thallium		g/hr		1706								
55	Total Cl		g/hr		40406								

	A	B	C
1	Process Information		
2		Units	Avg
3			
4	1008C1		
5			
6	Combustion Chamber Temp	°F	2059
7			
8	1008C2		
9			
10	Combustion Chamber Temp	°F	1917