

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase II ID No.	1002
4	EPA ID No.	TXD083472266
5	Facility Name	Lyondell Chemical Co.
6	Facility Location	
7	City	Channelview
8	State	TX
9	Unit ID Name/No.	Utility Boiler 3
10	Other Sister Facilities	Utility Boilers 1 and 2
11	Number of Sister Facilities	2
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid injection
14	Combustor Characteristics	Babcock & Wilcox, 600,000 lbs/hr of 750 psig steam, 6 burners
15	Capacity (MMBtu/hr)	
16	Soot Blowing	Yes (Run # 3 of test condition 1)
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid waste byproducts (D001, D018, & "LLF")
22	Supplemental Fuel	Natural gas
23		Propane purge
24		
25	Stack Characteristics	
26	Diameter (ft)	5 x 15 rectangular duct
27	Height (ft)	30
28	Gas Velocity (ft/sec)	54.65
29	Gas Temperature (°F)	311
30		
31	Permitting Status	Tier I for metals and chloride
	HWC Burn Status (Date if	
32	Terminated)	

	B	C
1	<b>Cond Description</b>	
2		
3	<b>1002C1</b>	
4		
5	Report Name/Date	Recertification of Compliance for F-65630 Hot Oil Heater and Utility Boilers; 8/07/97
6	Report Preparer	Waste Min Inc.
7	Testing Firm	Waste Min Inc.
8	Testing Dates	July 8, 1997
9	Cond Dates	Jul-97
10	Cond Description	CoC; min combustion temperature
11	Content	CO emissions only; no feed analysis
12		
13	<b>1002C2</b>	
14		
15	Report Name/Date	Recertification of Compliance for F-65630 Hot Oil Heater and Utility Boilers; 8/31/98
16	Report Preparer	Waste Min Inc.
17	Testing Firm	Waste Min Inc.
18	Testing Dates	July 22, 1998
19	Cond Dates	Jul-98
20	Cond Description	CoC; max waste and ash feed
21	Content	PM, CO emissions only; feed analysis for ash, metals, chlorides
22		
23	<b>1002C3</b>	
24		
25	Report Name/Date	Recertification of Compliance for F-65630 Hot Oil Heater and Utility Boilers; 8/31/98
26	Report Preparer	Waste Min Inc.
27	Testing Firm	Waste Min Inc.
28	Testing Dates	July 23, 1998
29	Cond Dates	Jul-98
30	Cond Description	CoC; min combustion temperature
31	Content	CO emissions only; no feed analysis

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2												
3										sootblow		
4	Cond ID	Comments	Units	7% O2								
5	<b>1002C1</b>					R1		R2		R3		Cond Avg
6												
7	CO (RA)	E1	ppmv	y		0		0		0		0
8	CO (MHRA)	E1	ppmv	y		0		0		0		0
9												
10	<b>1002C2</b>					R1		R2		R3		Cond Avg
11												
12	CO (RA)	E1	ppmv	y		1.42		1.45		1.32		1.4
13	CO (MHRA)	E1	ppmv	y		1.46		1.53		1.44		1.5
14	PM	E1	gr/dscf	y		0.0088		0.007		0.0122		0.0093
15												
16	Sampling Train	PM	E1									
17	Stack Gas Flowrate		dscfm			138901		144713		142806		142140.0
18	O2		%			6.4		5.2		4.4		5.3
19	Moisture		%			15.2		15.6		16.2		15.7
20	Temperature		F			310		313		312		311.7
21												
22	<b>1002C3</b>					R1		R2		R3		Cond Avg
23												
24	CO (MHRA)	E1	ppmv	y								3.5
25	CO (RA)	E1	ppmv	y								3.23

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	<b>Feedstreams</b>																			
2	Cond ID No.																			
3																				
4																				
5	<b>1002C1</b>																			
6	Feedstream Number																			
7	Feed Class																			
8	Feed Class																			
9	Feedstream Description																			
10	Feed Rate	lb/hr																		
11																				
12	<b>1002C2</b>																			
13																				
14	Feedstream Number																			
15	Feed Class																			
16	Feed Class 2																			
17	Feedstream Description																			
18	Feed Rate	g/hr																		
19	Heating Value	Btu/lb																		
20	Thermal Feedrate	MMBtu/hr																		
21	Ash	g/hr																		
22	Chlorine	g/hr																		
23	Antimony	g/hr																		
24	Arsenic	g/hr																		
25	Barium	g/hr																		
26	Beryllium	g/hr																		
27	Cadmium	g/hr																		
28	Chromium	g/hr																		
29	Lead	g/hr																		
30	Mercury	g/hr																		
31	Silver	g/hr																		
32	Thallium	g/hr																		
33																				
34	Stack Gas Flowrate	dscfm																		
35	O2	%																		
36																				
37																				
38	<b>Feedrate MTEC Calculations</b>																			
39	Ash	mg/dscm																		
40	Chlorine	µg/dscm																		
41	Antimony	µg/dscm																		
42	Arsenic	µg/dscm																		
43	Barium	µg/dscm																		
44	Beryllium	µg/dscm																		
45	Cadmium	µg/dscm																		
46	Chromium	µg/dscm																		
47	Lead	µg/dscm																		
48	Mercury	µg/dscm																		
49	Silver	µg/dscm																		
50	Thallium	µg/dscm																		
51	SVM	µg/dscm																		
52	LVM	µg/dscm																		
53																				
54																				
55	<b>BIF Feedrate Limits</b>																			
56	Antimony	g/hr																		
57	Arsenic	g/hr																		
58																				

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																							
2																							
3																							
4																							
5	R1		R2		R3	Cond Avg	R1		R2		R3	Cond Avg	R1		R2		R3		R2		R3	Cond Avg	
6							F4		F4		F4	F4			F5		F5		F5		F5	F5	F5
7	F3		F3		F3	Misc. Fuel	NG		NG		NG	NG			Misc. Fuel		Misc. Fuel		Misc. Fuel		Misc. Fuel	Misc. Fuel	Misc. Fuel
8	Misc. Fuel		Misc. Fuel		Misc. Fuel	Propane purge	Natural gas		Natural gas		Natural gas	Natural gas			Natural gas		Natural gas		Natural gas		Natural gas	Natural gas	Natural gas
9	Propane purge		Propane purge		Propane purge	420	9518		9518		9518	9518			9518		9518		9518		9518	9518	9518
10	420		420		420																		
11																							
12	R1		R2		R3	Cond Avg	R1		R2		R3	Cond Avg	R1		R2		R3		R2		R3	Cond Avg	
13							F4		F4		F4	F4			F5		F5		F5		F5	F5	F5
14	F3		F3		F3	Misc. Fuel	NG		NG		NG	NG			Misc. Fuel		Misc. Fuel		Misc. Fuel		Misc. Fuel	Misc. Fuel	Misc. Fuel
15	Misc. Fuel		Misc. Fuel		Misc. Fuel	Propane purge	Natural gas		Natural gas		Natural gas	Natural gas			Natural gas		Natural gas		Natural gas		Natural gas	Natural gas	Natural gas
16	MF		MF		MF	420	9518		9518		9518	9518			9518		9518		9518		9518	9518	9518
17	Propane purge		Propane purge		Propane purge	713483	20903		20903		20903	20903			20903		20903		20903		20903	20903	20903
18	713483		691834		716508		5659173		5609107		5609107	5609107			5609107		5609107		5609107		5609107	5609107	5609107
19	20903		20901		20902		20619		20619		20619	20619			20619		20619		20619		20619	20619	20619
20	32.85		31.85		32.988		257.02		254.75		254.75	254.75			254.75		254.75		254.75		254.75	254.75	254.75
21																							
22																							
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28																							
29																							
30																							
31																							
32																							
33																							
34	138901		144713		142806		138901		144713		144713	144713			144713		144713		144713		144713	144713	144713
35	6.4		5.2		4.4		6.4		5.2		5.2	5.2			5.2		5.2		5.2		5.2	5.2	5.2
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58																							

	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
1																
2																
3																
4																
5		R1		R2		R3		Cond Avg	R1		R2		R3		Cond Avg	
6																
7		F6		F6		F6		F6	F7		F7		F7		F7	
8		Spike		Spike		Spike		Spike	Total		Total		Total		Total	
9		Ash spike		Ash spike		Ash spike		Ash spike	Total		Total		Total		Total	
10																
11																
12		R1		R2		R3		Cond Avg	R1		R2		R3		Cond Avg	
13																
14		F6		F6		F6		F6	F7		F7		F7		F7	
15		Spike		Spike		Spike		Spike	Total		Total		Total		Total	
16									Total		Total		Total		Total	
17		Ash spike		Ash spike		Ash spike		Ash spike	Total		Total		Total		Total	
18		88241		199089		205275		88.3								
19																
20		0.097		0.22		0.226			779.9		762.4		777.8		780.0	
21		7430		16723		10202		11451.67								
22		3.88		8.36		19.71		10.65								
23		0.53		1.19		1.6		1.11								
24		0.04		0.1		0.13		0.09								
25		0.04		0.1		0.13		0.09								
26		0.04		0.1		0.13		0.09								
27		0.04		0.1		0.13		0.09								
28		0.04		0.1		0.13		0.09								
29		0.09		0.2		0.27		0.19								
30		0.02		0.05		0.07		0.05								
31		0.09		0.2		0.27		0.19								
32		0.04		0.1		0.13		0.09								
33																
34		138901		144713		142806		142140								
35		6.4		5.2		4.4		5.3								
36																
37																
38																
39		30.2		60.3		35.5		42.0	42.6		76.2		45.2		54.7	
40		15.8		30.1		68.6		38.2	1432.5		1024.8		1047.6		1168.3	
41		2.2		4.3		5.6		4.1	346.3		308.1		296.6		317.0	
42		0.2		0.4		0.5		0.3	28.8		25.7		24.7		26.4	
43		0.2		0.4		0.5		0.3	28.8		25.7		24.7		26.4	
44		0.2		0.4		0.5		0.3	28.8		25.7		24.7		26.4	
45		0.2		0.4		0.5		0.3	28.8		25.7		24.7		26.4	
46		0.2		0.4		0.5		0.3	50.4		45.6		41.1		45.7	
47		0.4		0.7		0.9		0.7	57.7		51.3		49.5		52.8	
48		0.1		0.2		0.2		0.2	14.4		12.8		12.4		13.2	
49		0.4		0.7		0.9		0.7	57.7		51.3		49.5		52.8	
50		0.2		0.4		0.5		0.3	28.8		25.7		24.7		26.4	
51		0.5		1.1		1.4		1.0	86.5		77.0		74.2		79.2	
52		0.5		1.1		1.4		1.0	107.9		97.0		90.5		98.5	
53																
54																
55																
56																
57																
58																

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
59	Barium											1312977								
60	Beryllium	g/hr										552								
61	Cadmium	g/hr										764								
62	Chromium	g/hr										44								
63	Lead	g/hr										2288								
64	Mercury	g/hr										7625								
65	Silver	g/hr										75958								
66	Thallium	g/hr										10309								
67	Chlorine	g/hr										9609								



	A	B	C
1	<b>Process Information</b>		
2			
3	Cond ID No.	Units	Cond Avg
4			
5	<b>1002C1</b>		
6			
7	Combustion Temperature	°F	626
8			
9	<b>1002C2</b>		
10			
11	Combustion Temperature	°F	1729