

US EPA ARCHIVE DOCUMENT

	A	B
1	Source Description	
2		
3	Phase II ID No.	745
4	EPA ID No.	TXD067285793
5	Facility Name	Shell Deer Park Refining Company
6	Facility Location	
7	City	Deer Park
8	State	TX
9	Unit ID Name/No.	F-UT-130
10	Other Sister Facilities	None (F-UT-111, F-UT-100 are BIFs; F-UT-120 is part of steam system, but burns no haz waste. All 4 units to 1 stack.)
11	Combustor	Liquid-fired boiler
	Combustor Characteristics	Watertube boiler. Horizontal-fired, forced draft, 500,000 lb/hr of steam, ~ 600 MMBtu/hr. Normal plant steam generation from the 4 boilers ranges from 750,000-2,000,000 lb/hr, average of 900,000
12		
13	Capacity (MMBtu/hr)	600
14	Soot Blowing	Yes
15	APCS	None
16	APCS Characteristics	
17	Hazardous Wastes	Liq
18	Haz Waste Description	Pitch blend - mix of phenol heavy ends (K022) and pitch
19	Supplemental Fuel	Natural gas
20		
21	Stack Characteristics	
22	Diameter (ft)	
23	Height (ft)	
24	Gas Velocity (ft/sec)	
25	Gas Temperature (°F)	
26		
27	Permitting Status	Tier I A - metals and chlorine
	HWC Burn Status (Date if	
28	Terminated)	

	A	B
1	Cond Description	
2		
3	745C10	
4		
5	Report Name/Date	Recertification of Compliance (ReCOC) under BIF Tier I, March 31, 1999
6	Report Prepare	Shell Deer Park Refinery
7	Testing Firm	Maxim Technologies
8	Laboratory	Pace Analytical Services Inc.
9	Testing Dates	March 2, 1999
10	Cond Dates	Mar-99
11	Condition Descr	CoC; unable to set min comb temp
12	Content	PM, CO; metals, chlorine in feedstreams

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comments	Units	7%O2		1		2		3		Cond Avg
4										sootblow		
5	Condition 10											
6												
7	PM		gr/dscf	y		0.0577		0.0813		0.0593		0.0645
8	CO (RA)		ppmv	y		7.85		8.44		6.43		7.6
9	CO (MHRA)		ppmv	y		9.16		9.16		9.16		9.2
10												
11	Sampling Train	PM										
12	Stack Gas Flowrate		dscfm			do not have						
13	O2		%									
14	Moisture		%									
15	Temperature		°F									

	B	C	D	E	F	G	H	I	J	K	L	M
1	Feedstreams											
2												
3	745C10				Cond Avg							
4												
5	Feedstream Description				BLD Pitch		Rec Oil		PHE		Fuel Gas	
6	Feed Rate		gpm		63.5		0		12.1			
7	Feed Rate		mscfh								143	
8	Ash		lb/hr		26							
9	Chlorine		lb/hr		60.9							
10	Arsenic		lb/hr	nd	0.024							
11	Silver		lb/hr	nd	0.084							
12	Barium		lb/hr	nd	0.037							
13	Beryllium		lb/hr	nd	0.004							
14	Cadmium		lb/hr	nd	0.004							
15	Chromium		lb/hr	nd	0.049							
16	Lead		lb/hr	nd	0.018							
17	Mercury		lb/hr	nd	0.004							
18	Antimony		lb/hr	nd	0.024							
19	Thallium		lb/hr	nd	0.024							
20												
21	Stack Gas Flowrate		dscfm	not available								
22	Oxygen		%									
23												
24	Thermal Feedrate		M2 Btu/hr	need stack gas flowrate								
25	Estimated Firing Rate		M2 Btu/hr	or firing rates to make calcs								
26	Ash		mg/dscm									
27	Chlorine		µg/dscm									
28	Arsenic		µg/dscm									
29	Silver		µg/dscm									
30	Barium		µg/dscm									
31	Beryllium		µg/dscm									
32	Cadmium		µg/dscm									
33	Chromium		µg/dscm									
34	Lead		µg/dscm									
35	Mercury		µg/dscm									
36	Antimony		µg/dscm									
37	Thallium		µg/dscm									
38	SVM		µg/dscm									
39	LVM		µg/dscm									
40												
41	BIF Feedrate Limits											
42												
43	Antimony		g/hr		44,000							
44	Arsenic		g/hr		330							
45	Barium		g/hr		7,300,000							
46	Beryllium		g/hr		610							
47	Cadmium		g/hr		810							
48	Chromium		g/hr		120							
49	Lead		g/hr		13,000							
50	Mercury		g/hr		12,000							
51	Silver		g/hr		440,000							
52	Thallium		g/hr		73,000							
53	Total Cl		g/hr		58,000							

	A	B	C	D	E
1	Process Information				
2					
3	745C10		Run 1	Run 2	Run 3
4					
5	Firebox Temp	°F	1488.1	1496.7	1515.4