

US EPA ARCHIVE DOCUMENT

	A	B
1	Source Description	
2		
3	Phase II ID No.	744
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-100
10	Other Sister Facilities	F-UT-110 (F-UT-130 also BIF unit; F-UT-120 is part of steam system, but burns no haz waste. All 4 units to 1 stack.)
11	Combustor	Liquid-fired boiler
12	Combustor Characteristics	Watertube boiler. Horizontal-fired, forced draft, 500,000 lb/hr steam, ~ 600 MMBtu/hr of fuel input. Normal plant total steam generation from the 4 boilers ranges from 750,000-2,000,000 lb/hr, average of 900,000
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 metals and chlorine
28	HWC Burn Status (Date if Terminated)	

	A	B
1	Cond Description	
2		
3	744C10	
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 cham 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		0.0163		0.0165		0.0303		0.0210
8	CO (RA)		ppmv	y		3.61		3.73		3.58		3.6
9	CO (MHRA)		ppmv	y		4.16		4.16		6.66		5.0
10												
11	Sampling Train	PM										
12	Stack Gas Flowrate		dscfm									
13	O2		%									
14	Moisture		%									
15	Temperature		°F									

	B	C	D	E	F	G	H	I	J	K	L
1	Feedstreams										
2											
3	744C10				Cond Avg						
4											
5	Feedstream Description				BLD Pitch		Rec Oil		PHE		Fuel Gas
6	Feed Rate		gpm		60		0		12		
7	Feed Rate		mscfh								125
8	Ash		lb/hr		26						
9	Chlorine		lb/hr		60.9						
10	Arsenic		lb/hr	nd	0.024						
11	Silver		lb/hr	nd	0.086						
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 gas flowrate						
25	Estimated Firing Rate		M2 Btu/hr		or firing rates						
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											
42	BIF Feedrate Limits										
43											
44	Antimony		g/hr		44,000						
45	Arsenic		g/hr		330						
46	Barium		g/hr		7,300,000						
47	Beryllium		g/hr		610						
48	Cadmium		g/hr		810						
49	Chromium		g/hr		120						
50	Lead		g/hr		13,000						
51	Mercury		g/hr		12,000						
52	Silver		g/hr		440,000						
53	Thallium		g/hr		73,000						
54	Total Cl		g/hr		58,000						

	A	B	C	D	E
1	Process Information				
2					
3	744C10		Run 1	Run 2	Run 3
4					
5	Fire Box Temp	°F	1604.5	1606.8	1559.1