

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase II ID No.	729
4	EPA ID No.	CTD001159730
5	Facility Name	Dow Chemical U.S.A. Allyn's Point Facility
6	Facility Location	
7	City	Gales Ferry
8	State	CT
9	Unit ID Name/No.	Boiler Unit A
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid injection, process heater
	Combustor Characteristics	Boiler -- Downtherm process heater. Vertically-fired cold boiler, Dowtherm liquid heat exchanger, capacity of 9.0 MMBtu/hr input (8.0 MMBtu/hr output)
14		
15	Capacity (MMBtu/hr)	9
16	Soot Blowing	None
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	N/A
20	Hazardous Wastes	Liq, solid
	Haz Waste Description	Liquid and solid wastes (polystyrene, recycle process products), mostly ignitable (D001)
21		
22	Supplemental Fuel	oil
23		No. 2 fuel oil
24	Stack Characteristics	
25	Diameter (ft)	2
26	Height (ft)	
27	Gas Velocity (ft/sec)	12.2
28	Gas Temperature (°F)	399.5
29		
30	Permitting Status	Tier I for metals and chlorine
	HWC Burn Status (Date if Terminated)	
31		

	B	C
1	Cond Description	
2		
3	729C1	
4		
5	Report Name/Date	Compliance Recertification for Boiler A Pursuant to the BIF Regulations, August 1998
6	Report Prepare	ENSR Corporation
7	Testing Firm	ENSR Corporation
8	Testing Dates	June 10, 1998
9	Cond Dates	Jun-98
10	Condition Descr	CoC, max waste feed rate
11	Content	PM, CO

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comme	Units			7% O2						
4												
5												
6	729C1	COC				R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0058		0.0048		0.0040		0.0049
9	CO (MHRA)	E1	ppmv	y		23.2		30.2		33.9		29.1
10	CO (RA)	E1	ppmv	y		22.5		26.8		32.8		27.4
11												
12	Sampling Train	PM	E1									
13	Stack Gas Flowrate		dscfm			2263		2352		2290		2301.0
14	O2		%			14.7		14.1		14.4		14.4
15	Moisture		%			4.2		4		4.5		4.3
16	Temperature		°F			396.5		403.5		398.5		399.5

	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				
1	Feedstreams																														
2																															
3																															
4	729C1	CoC testing				R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg		
5																															
6	Feedstream Number					F1	F1	F1	F1	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	
7	Feed Class					Liq HW	Liq HW	Liq HW	Liq HW	Oil	Oil	Oil	Oil	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
8	Feed Class 2					HW	HW	HW	HW	MF	MF	MF	MF	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
9	Feedstream Description					Liq wastes	Liq wastes	Liq wastes	Liq wastes	No. 2 Oil	No. 2 Oil	No. 2 Oil	No. 2 Oil	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	
10	Feed Rate	lb/hr					267	267	266.4	267.0	63.36	63.36	63.37	63.36	18000	18000	19000	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	
11	Heating Value	Btu/lb					1.80E+04	17000	17000	17333	18000	18000	19000	18333	18000	18000	19000	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	18333	
12	Density	g/cc					0.9	0.91	0.91	0.91	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
13	Ash	% wt					0.068	0	0	0.023	0	0.028	0	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	
14	Chlorine	mg/kg					230	280	200	237	1100	200	200	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	
15	Antimony	mg/kg	nd					0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd
16	Arsenic	mg/kg	nd					0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd
17	Barium	mg/kg	nd					0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd	0.15	nd
18	Beryllium	mg/kg	nd					0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd
19	Cadmium	mg/kg	nd					0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd
20	Chromium	mg/kg					0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
21	Lead	mg/kg	nd					0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd	0.09	nd
22	Mercury	mg/kg	nd					0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd	0.04	nd
23	Silver	mg/kg	nd					0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd	0.03	nd
24	Thallium	mg/kg	nd					0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd	0.06	nd
25																															
26	Stack Gas Flowrate	dscfm					2263	2352	2290	2301	2263	2352	2290	2301	2263	2352	2290	2301	2263	2352	2290	2301	2263	2352	2290	2301	2263	2352	2290	2301	
27	Oxygen	%					14.7	14.1	14.4	14.4	14.7	14.1	14.4	14.4	14.7	14.1	14.4	14.4	14.7	14.1	14.4	14.4	14.7	14.1	14.4	14.4	14.7	14.1	14.4	14.4	
28																															
29	Thermal Feedrate	MMBtu/hr					4.8	4.5	4.5	4.6	1.1	1.1	1.2	1.2	5.9	5.7	5.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	
30	Estimated Firing Rate	MMBtu/hr													4.5	5.2	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
31																															
32	<i>Feedrate MTEC Calculations</i>																														
33	Ash	mg/dscm					47.7	0.0	0.0	15.9	0.0	6.5	0.0	2.2	0	47.7	0	6.5	0.0	0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
34	Chlorine	ug/dscm	100					16124	17244	13196	15520.9	18299	2923	3139	8120.3	47	34422.6	86	20166.5	81	16334.6	66	23641.2	23641.2	23641.2	23641.2	23641.2	23641.2	23641.2	23641.2	23641.2
35	Antimony	ug/dscm	100					4.2	3.7	4.0	4.0	1.0	0.9	0.9	0.9	5.2	4.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
36	Arsenic	ug/dscm	100					10.5	9.2	9.9	9.9	2.5	2.2	2.4	2.3	13.0	100	11.4	100	12.3	100	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
37	Barium	ug/dscm	100					10.5	9.2	9.9	9.9	2.5	2.2	2.4	2.3	13.0	100	11.4	100	12.3	100	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
38	Beryllium	ug/dscm	100					4.2	3.7	4.0	4.0	1.0	0.9	0.9	0.9	5.2	4.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
39	Cadmium	ug/dscm	100					2.1	1.8	2.0	2.0	0.5	0.4	0.5	0.5	2.6	2.3	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
40	Chromium	ug/dscm					34.4	33.3	31.7	33.1	7.3	5.4	7.2	6.6	0	41.7	0	38.7	0	38.9	0	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
41	Lead	ug/dscm	100					6.3	5.5	5.9	5.9	1.5	1.3	1.4	1.4	7.8	6.9	7.4	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
42	Mercury	ug/dscm	100					2.8	2.5	2.6	2.6	0.7	0.6	0.6	0.6	3.5	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
43	Silver	ug/dscm	100					2.1	1.8	2.0	2.0	0.5	0.4	0.5	0.5	2.6	2.3	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
44	Thallium	ug/dscm	100					4.2	3.7	4.0	4.0	1.0	0.9	0.9	0.9	5.2	4.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
45																															
46	SVM	ug/dscm	100					8.4	7.4	7.9	7.9	2.0	1.8	1.9	1.9	10.4	9.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
47	LVM	ug/dscm	30					49.1	46.2	45.5	46.9	10.8	8.5	10.5	9.9	59.9	54.7	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
48																															
49	BIF Feedrate Limits																														
50																															
51	Arsenic	g/s																													
52	Antimony	g/s																													
53	Barium	g/s																													
54	Beryllium	g/s																													
55	Cadmium	g/s																													
56	Chromium	g/s																													
57	Lead	g/s																													
58	Mercury	g/s																													
59	Silver	g/s																													
60	Thallium	g/s																													
61	Chlorine	g/s																													

	A	B	C
1	Process Information		
2			
3	729C1 CoC testing		
4			
5	Comb Temp	°F	1149