

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase II ID No.	819
4	EPA ID No.	WVD005005509
5	Facility Name	Rhone-Poulenc AG Company
6	Facility Location	
7	City	Charleston
8	State	WV
9	Unit ID Name/No.	Boiler No. 3
10	Other Sister Facilities	Boiler No. 4
11	Number of Sister Facilities	1
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid-fired
14	Combustor Characteristics	Watertube boiler. Riley-Stoker design, model P1-31-WW, generating of 150000 lb/hr steam, four burners in front and arranged two by two square.
15	Capacity (MMBtu/hr)	121
16	Soot Blowing	Yes, second run
17	APCS Detailed Acronym	ESP
18	APCS General Class	ESP
19	APCS Characteristics	2-stage ESP made by Research-Cottrell, Model No. G.O.2981, treat 120000 cfm @ 450F (Mechanical collector and hopper collector not used anymore)
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid waste
22	Supplemental Fuel	Natural gas
23		Previously fired coal. No longer does.
24	Stack Characteristics	
25	Diameter (ft)	
26	Height (ft)	28.5
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	328.4
29		
30	Permitting Status	Tier III for metals (As, Cr) and HCl/Cl <sub>2</sub> ; Tier I for other metals
31	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Cond Description</b>	
2		
3	<b>819C1</b>	
4		
5	Report Name/Date	Certification of Compliance Boiler 3 Institute Plant, August 1998
6	Report Prepare	TRC Environmental Corporation
7	Testing Firm	TRC Environmental Corporation
8	Testing Dates	March 25, 1998
9	Cond Dates	Mar-98
10	Condition Descr	CoC; high haz waste feed rate
11	Content	PM, CO, HCl/Cl2, Tier III metals (As, Cr)
12		
13	<b>819C2</b>	
14		
15	Report Name/Date	Certification of Compliance Boiler 3 Institute Plant, August 1998
16	Report Prepare	TRC Environmental Corporation
17	Testing Firm	TRC Environmental Corporation
18	Testing Dates	June 4, 1998
19	Cond Dates	Jun-98
20	Condition Descr	CoC; highest Cr feed
21	Content	CO, Cr+6/Cr
22		
23	<b>819C3</b>	
24		
25	Report Name/Date	Certification of Compliance Boiler 3 Institute Plant, August 1998
26	Report Prepare	TRC Environmental Corporation
27	Testing Firm	TRC Environmental Corporation
28	Testing Dates	March 26, 1998
29	Cond Dates	Mar-98
30	Condition Descr	CoC; min comb temp
31	Content	CO

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Stack Gas Emissions</b>												
2													
3			Units	7% O2									
4								Sootblow					
5													
6	<b>819C1</b>	<b>CoC Testing</b>				R1		R2		R3		Cond Avg	
7													
8	PM	E1	gr/dscf	y		0.0171		0.0176		0.0187		0.0178	
9	HCl		g/hr			4951		5623		4976		4994	
10	Cl2		g/hr			94		86		82		88	
11	Arsenic		g/hr			0.45		0.48		0.44		0.45	
12	Beryllium		g/hr		nd	0.045	nd	0.044	nd	0.044		0.044	
13	Cadmium		g/hr		nd	0.11	nd	0.11	nd	0.110		0.11	
14													
15	HCl	E1	ppmv	y		71.4		69.4		65.6		66.8	
16	Cl2	E1	ppmv	y		0.7		0.5		0.6		0.6	
17	Total Chlorine	E1	ppmv	y		72.8		70.4		66.7		68.0	
18	Arsenic	E2	µg/dscm	y		9.7		8.9		8.7		9.0	
19	Beryllium	E2	µg/dscm	y	nd	1.0	nd	0.8	nd	0.9	100	0.4	
20	Cadmium	E2	µg/dscm	y	nd	2.4	nd	2.0	nd	2.2	100	1.1	
21	SVM	E2	µg/dscm	y	100	2.4	100	2.0	100	2.2	100	1.1	Cd only
22	LVM	E2	µg/dscm	y	0.4	10.7	0.5	9.7	0.5	9.6	0.5	9.5	No Cr
23													
24	Sampling Train	PM, HCl,Cl2	E1										
25	Stack Gas Flowrate		dscfm			88730		93001		92790		91507	
26	O2		%			16.7		16.2		16.5		16.5	
27	Moisture		%			5.5		8.2		6.1		6.6	
28	Temperature		°F			335.5		346.2		345.6		342.4	
29													
30	Sampling Train	Tier III Metals	E2										
31	Stack Gas Flowrate		dscfm			92955		93039		92664		92886	
32	O2		%			16.7		16.2		16.5		16.5	
33	Moisture		%			5.5		5.9		5.9		5.8	
34	Temperature		°F			337		346.2		348		343.7	
35													
36	<b>819C2</b>	<b>CoC Testing</b>				R1		R2		R3		Cond Avg	
37													
38	CO (MHRA)	E1	ppmv	y		2		3		3		3	
39	CO (RA)	E1	ppmv	y		2		2		2		2	
40	Chromium (Hex)		g/hr		nd	0.024	nd	0.026	nd	0.024		0.024	
41	Chromium		g/hr			0.66		0.85		1.3		0.937	
42													
43	Chromium (Hex)	E1	µg/dscm	y	nd	0.4	nd	0.4	nd	0.4	100	0.2	
44	Chromium	E1	µg/dscm	y		11.2		14.3		21.4		15.643	
45	LVM	E1	µg/dscm	y		11.2		14.3		21.4		15.643	Cr Only
46													
47	Sampling Train	Cr+6/Cr	E1										
48	Stack Gas Flowrate		dscfm			83888		84489		89262		85879	
49	O2		%			15.2		15.2		15.4		15.3	
50	Moisture		%			7.3		6.1		6.4		6.6	
51	Temperature		°F			296.6		301.4		301.6		299.9	
52													
53	<b>819C3</b>	<b>CoC Testing</b>				R1		R2		R3		Cond Avg	
54													
55	CO (RA)		ppmv	y		7		9		15		10	
56	CO (MHRA)		ppmv	y		9		11		15		12.00	

	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	
1	<b>Feedstreams</b>																										
2																											
3	<b>819C1</b>																										
4																											
5	Feedstream Number																										
6	Feed Class																										
7	Feed Class 2																										
8	Feedstream Description																										
9	Feed Rate	lb/hr																									
10	Viscosity	cps																									
11	Heating Value	Btu/lb																									
12	Ash	g/hr																									
13	Chlorine	g/hr																									
14	Antimony	g/hr																									
15	Arsenic	g/hr																									
16	Barium	g/hr																									
17	Beryllium	g/hr																									
18	Cadmium	g/hr																									
19	Chromium	g/hr																									
20	Lead	g/hr																									
21	Mercury	g/hr																									
22	Silver	g/hr																									
23	Thallium	g/hr																									
24																											
25	Stack Gas Flowrate	dscfm																									
26	Oxygen	%																									
27																											
28	Thermal Feedrate	MMBtu/hr																									
29	Estimated Firing Rate	MMBtu/hr																									
30																											
31	Feedrate MTEC Calculations																										
32	Ash	mg/dscm																									
33	Chlorine	ug/dscm																									
34	Antimony	ug/dscm																									
35	Arsenic	ug/dscm																									
36	Barium	ug/dscm																									
37	Beryllium	ug/dscm																									
38	Cadmium	ug/dscm																									
39	Chromium	ug/dscm																									
40	Lead	ug/dscm																									
41	Mercury	ug/dscm																									
42	Silver	ug/dscm																									
43	Thallium	ug/dscm																									
44																											
45	SVM	ug/dscm																									
46	LVM	ug/dscm																									
47																											
48																											
49																											
50	<b>819C2</b>																										
51																											
52	Feedstream Number																										
53	Feed Class																										
54	Feed Class 2																										
55	Feedstream Description																										
56	Feed Rate	lb/hr																									
57	Heating Value	Btu/lb																									
58	Thermal Feedrate	MMBtu/hr																									
59	Chromium	g/hr																									
60																											

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
1	<b>Feedstreams</b>										
2											
3	<b>819C1</b>	Cond Avg	R1		R2		R3			Cond Avg	
4											
5	Feedstream Number	F3	F4		F4		F4			F4	
6	Feed Class	Spike	Total		Total		Total			Total	
7	Feed Class 2	Spike	Total		Total		Total			Total	
8	Feedstream Description	Spike	Total		Total		Total			Total	
9	Feed Rate										
10	Viscosity										
11	Heating Value										
12	Ash	56702									
13	Chlorine	5034									
14	Antimony										
15	Arsenic	6.8									
16	Barium										
17	Beryllium										
18	Cadmium										
19	Chromium	680									
20	Lead										
21	Mercury										
22	Silver										
23	Thallium										
24											
25	Stack Gas Flowrate	91507	88730		93001		92790			91507	
26	Oxygen	16.5	16.7		16.2		16.5			16.5	
27											
28	Thermal Feedrate		122.5		121.4		119.0			121.0	
29	Estimated Firing Rate		121.1		141.7		132.6			131.8	
30											
31	<i>Feedrate MTEC Calculat</i>										
32	Ash	1135	0	1284.9	0	1098.1	0	1173.9		1190.2	
33	Chlorine	100794	0	121857.8	0	104557.4	0	110774.4		112797.7	
34	Antimony		100	43.2	100	36.9	100	39.5	100	39.9	
35	Arsenic	136.2	0	146.9	0	125.6	0	134.3	0	136.2	
36	Barium		100	43.2	100	36.9	100	39.5	100	39.9	
37	Beryllium		100	43.2	100	36.9	100	39.5	100	39.9	
38	Cadmium		100	43.2	100	36.9	100	39.5	100	39.9	
39	Chromium	13615.5	0	15522.3	0	13257.6	0	14211.1	0	14385.4	
40	Lead		100	43.2	100	36.9	100	39.5	100	39.9	
41	Mercury		100	43.2	100	36.9	100	39.5	100	39.9	
42	Silver		100	43.2	100	36.9	100	39.5	100	39.9	
43	Thallium		100	43.2	100	36.9	100	39.5	100	39.9	
44											
45	SVM		100	86.4	100	73.9	100	79.0	100	79.8	
46	LVM	13751.6	0	15712.5	0	13420.1	0	14384.9		14561.4	
47											
48											
49											
50	<b>819C2</b>	Cond Avg	R1		R2		R3			Cond Avg	
51											
52	Feedstream Number	F3	F4		F4		F4			F4	
53	Feed Class	Spike	Total		Total		Total			Total	
54	Feed Class 2	Spike	Total		Total		Total			Total	
55	Feedstream Description	Spike	Total		Total		Total			Total	
56	Feed Rate										
57	Heating Value										
58	Thermal Feedrate		122		122		122			122	
59	Chromium	211									
60											

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
61	Stack Gas Flowrate	dscfm		83888		84489		89262		85879										83888		84489		89262	
62	Oxygen	%		15.2		15.2		15.4		15.3										15.2		15.2		15.4	
63																									
64	Estimated Firing Rate																								
65	Feedrate MTEC Calculations																								
66	Chromium	ug/dscm		893.0		848.0		869.3		875.9										3592.5		3499.7		3496.8	
67	LVM	ug/dscm		893.0		848.0		869.3		875.9										3592.5		3499.7		3496.8	
68																									
69																									
70																									
71																									
72	<b>819C3</b>	<b>CoC testing</b>				R2		R3		Cond Avg															
73																									
74	Feedstream Number			F1		F1		F1		F1															
75	Feed Class			Liq HW		Liq HW		Liq HW		Liq HW															
76	Feed Class 2			HW		HW		HW		HW															
77	Feedstream Description			Liq wastes		Liq wastes		Liq wastes		Liq wastes															
78	Feed Rate	lb/hr		1675.0		1675.0		1675.0		1675.0															

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
61	Stack Gas Flowrate	85879	83888	83888	15.2	84489	89262	89262	85880	85880	AK
62	Oxygen	15.3		15.2	15.2	15.2	15.4	15.4	15.3	15.3	
63											
64	Estimated Firing Rate			154.5	155.6	155.6	158.7	158.7	156.2	156.2	
65											
66	<i>Feedrate MTEC Calculatic</i>										
67	Chromium	3553.9		4485.6	4347.7	4347.7	4366.1	4366.1	4429.8	4429.8	
68	LVM	3553.9		4485.6	4347.7	4347.7	4366.1	4366.1	4429.8	4429.8	Cr Only
69											
70											
71											
72											
73											
74	Feedstream Number										
75	Feed Class										
76	Feed Class 2										
77	Feedstream Description										
78	Feed Rate										



	A	B	C
1	<b>Process Information</b>		
2			
3	<b>819C1</b>	CoC testing	Cond Avg
4			
5	Comb Temp	°F	1009
6	Steam Prod Rate	Mlb/hr	131
7	ESP Power	kW	12.7
8			
9	<b>819C2</b>	CoC testing	
10			
11	Comb Temp	°F	1013
12	Steam Prod Rate	Mlb/hr	139
13	ESP Power	kW	13
14			
15	<b>819C3</b>	CoC testing	
16			
17	Comb Temp	°F	464