	B	C
1	**Source Description**	
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 lll for metals (As, Cr) and HCl/Cl2; Tier I for other metals
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Cond Description**	
2		
3	**819C1**	
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 lll metals (As, Cr)
12		
13	**819C2**	
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	**819C3**	
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	**Stack Gas Emissions**												
2													
3			Units	7% O2									
4								Sootblow					
5													
6	**819C1**	**CoC Testing**				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	**819C2**	**CoC Testing**				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	**819C3**	**CoC Testing**				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	**Feedstreams**																									
2																										
3	**819C1**	**CoC testing**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
4																										
5	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3	
6	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		NG		NG		NG		NG		Spike		Spike		Spike	
7	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Spike		Spike		Spike	
8	Feedstream Description				Liq. Wastes		Liq. Wastes		Liq. Wastes		Liq. Wastes		Natural Gas		Natural Gas		Natural Gas		Natural Gas		Spike		Spike		Spike	
9	Feed Rate		lb/hr		5056		5056		5056		5056		3250		3167		3000		3138							
10	Viscosity		cps		6.5		6.5		6.5		6.5															
11	Heating Value		Btu/lb		15233		15233		15233		15233		14000		14000		14000		14000							
12	Ash		g/hr		2752		2752		2752		2752										56708		56701		56697	
13	Chlorine		g/hr		605		626		576		602										5034		5035		5034	
14	Antimony		g/hr	nd	2	nd	2	nd	2		2															
15	Arsenic		g/hr	nd	0	nd	0	nd	0		0										6.8		6.8		6.8	
16	Barium		g/hr	nd	2	nd	2	nd	2		2															
17	Beryllium		g/hr	nd	2	nd	2	nd	2		2															
18	Cadmium		g/hr	nd	2	nd	2	nd	2		2															
19	Chromium		g/hr		38.3		37.8		39.7		38.6										680		680		680	
20	Lead		g/hr	nd	2	nd	2	nd	2		2															
21	Mercury		g/hr	nd	2	nd	2	nd	2		2															
22	Silver		g/hr	nd	2	nd	2	nd	2		2															
23	Thallium		g/hr	nd	2	nd	2	nd	2		2															
24																										
25	Stack Gas Flowrate		dscfm		88730		93001		92790		91507										88730		93001		92790	
26	Oxygen		%		16.7		16.2		16.5		16.5										16.7		16.2		16.5	
27																										
28	Thermal Feedrate		MMBtu/hr		77.0		77.0		77.0		77.0		45.5		44.3		42.0		43.9							
29	Estimated Firing Rate		MMBtu/hr																							
30																										
31	*Feedrate MTEC Calculations*																									
32	Ash		mg/dscm		59		51		54		55										1225		1047		1120	
33	Chlorine		ug/dscm		13074		11562		11374		12003										108784		92995		99401	
34	Antimony		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
35	Arsenic		ug/dscm	100	0.0	100	0.0	100	0.0	100	0										146.9		125.6		134.3	
36	Barium		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
37	Beryllium		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
38	Cadmium		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
39	Chromium		ug/dscm		827.7		698.2		783.9		770										14694.7		12559.4		13427.2	
40	Lead		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
41	Mercury		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
42	Silver		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
43	Thallium		ug/dscm	100	43.2	100	36.9	100	39.5	100	40															
44																										
45	SVM		ug/dscm	100	86	100	74	100	79	100	80															
46	LVM		ug/dscm	5	871	5	735	5	823	5	810										14841.6		12685.0		13561.5	
47																										
48																										
49																										
50	**819C2**	**CoC testing**			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3	
51																										
52	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3	
53	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		NG		NG		NG		NG		Spike		Spike		Spike	
54	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Spike		Spike		Spike	
55	Feedstream Description				Liq wastes		Liq wastes		Liq wastes		Liq wastes		Gas		Gas		Gas		Gas		Spike		Spike		Spike	
56	Feed Rate		lb/hr		5056		5056		5056		5056		2292		2292		2292		2292							
57	Heating Value		Btu/lb		15000		15000		15000		15000		20000		20000		20000		20000							
58	Thermal Feedrate		MMBtu/hr		76		76		76		76		46		46		46		46							
59	Chromium		g/hr		52.7		50.4		52.7		52										212		208		212	
60																										

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
1	**Feedstreams**										
2											
3	**819C1**	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	*Feedrate MTEC Calculatic*										
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	**819C2**	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																										
66	*Feedrate MTEC Calculations*																									
67	Chromium		ug/dscm		893.0		848.0		869.3		875.9										3592.5		3499.7		3496.8	
68	LVM		ug/dscm		893.0		848.0		869.3		875.9										3592.5		3499.7		3496.8	
69																										
70																										
71																										
72	**819C3**	**CoC testing**			R1		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		84489		89262		85880	
62	Oxygen	15.3		15.2		15.2		15.4		15.3	
63											
64	Estimated Firing Rate			154.5		155.6		158.7		156.2	
65											
66	*Feedrate MTEC Calculatic*										
67	Chromium	3553.9		4485.6		4347.7		4366.1		4429.8	
68	LVM	3553.9		4485.6		4347.7		4366.1		4429.8	Cr Only
69											
70											
71											
72	**819C3**										
73											
74	Feedstream Number										
75	Feed Class										
76	Feed Class 2										
77	Feedstream Description										
78	Feed Rate										

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