	B	C
1	**Source Description**	
2		
3	Phase II ID No.	840
4	EPA ID No.	OHD004233003
5	Facility Name	Bayer (Monsanto Co. Port Plastic Plant)
6	Facility Location	
7	City	Addyston
8	State	OH
9	Unit ID Name/No.	Boiler No.4
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid-fired
14	Combustor Characteristics	Watertube boiler. Foster-Wheeler, three firing guns, 48 MMBtu/hr, 35,000 lb/hr steam
15	Capacity (MMBtu/hr)	48
16	Soot Blowing	Yes, twice per day
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	NA
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid waste byproducts (spent monomer)
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	4.0
26	Height (ft)	50.0
27	Gas Velocity (ft/sec)	30.8
28	Gas Temperature (°F)	508
29		
30	Permitting Status	Tier I for metals and chlorine
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Cond Description**	
2		
3	**840C1**	
4		
5	Report Name/Date	Periodic Recertification of Compliance Boiler No. 4 Monsanto Company Port Plastics Plant, December 1994
6	Report Prepare	B3 Systems, Inc.
7	Testing Firm	METCO Environmental
8	Testing Dates	September 28, 1994
9	Cond Dates	Sep-94
10	Condition Descr	CoC; max feed Bldg. 30 spent monomer and resimene distillate
11	Content	PM, CO
12		
13	**840C2**	
14		
15	Report Name/Date	Periodic Recertification of Compliance Boiler No. 4 Monsanto Company Port Plastics Plant, December 1994
16	Report Prepare	B3 Systems, Inc.
17	Testing Firm	METCO Environmental
18	Testing Dates	September 29, 1994
19	Cond Dates	Sep-94
20	Condition Descr	CoC; max feed Bldg. 9 spent monomer and resimene distillate
21	Content	PM, CO
22		
23	**840C3**	
24		
25	Report Name/Date	Compliance Recertification for Bayer's Boiler No. 4 Pursuant to the BIF Regulations; November 1997 Doc No 4690-047-400
26	Report Prepare	Bayer Corporation-Polymers Division-Addyson Facility
27	Testing Firm	ENSR
28	Testing Dates	October 1, 1997
29	Cond Dates	Oct-97
30	Condition Descr	CoC; max feed Bldg. 30 spent monomer and resimene distillate
31	Content	Stack PM, HCl and Cl2; Feed analysis
32		
33	**840C4**	
34		
35	Report Name/Date	Compliance Recertification for Bayer's Boiler No. 4 Pursuant to the BIF Regulations; November 1997 Doc No 4690-047-400
36	Report Prepare	Bayer Corporation-Polymers Division-Addyson Facility
37	Testing Firm	ENSR
38	Testing Dates	October 2, 1997
39	Cond Dates	Oct-97
40	Condition Descr	CoC; max feed Bldg. 9 spent monomer and resimene distillate
41	Content	Stack PM, HCl and Cl2; Feed analysis

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions**											
2												
3		Comments	Units	7% O2								
4												
5												
6	**840C1**					R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0275		0.031		0.0208		0.0264
9	CO (RA)	E1	ppmv	y		7.26		1.94		0.89		3.4
10	CO (MHRA)	E1	ppmv	y		9.05		8.81		0.99		6.3
11												
12	Sampling Train	PM	E1									
13	Stack Gas Flowrate		dscfm			10263		9953		10678		10298.0
14	O2		%			7.8		7.4		6.4		7.2
15	Moisture		%			22.1		18.86		18.14		19.7
16	Temperature		°F			490		500		493		494.3
17												
18												
19	**840C2**					R1		R2		R3		Cond Avg
20												
21	PM	E1	gr/dscf	y		0.0218		0.0191		0.0256		0.0222
22	CO (RA)	E1	ppmv	y		1.19		1.56		3.9		2.2
23	CO (MHRA)	E1	ppmv	y		1.27		1.61		5.9		2.9
24												
25	Sampling Train	PM	E1									
26	Stack Gas Flowrate		dscfm			10638		11286		10234		10719.3
27	O2		%			7.7		7.7		7.7		7.7
28	Moisture		%			17.89		17.99		18.06		18.0
29	Temperature		°F			505		517		511		511.0
30												
31												
32	**840C3**					R1		R2		R3		Cond Avg
33												
34	PM	E1	gr/dscf	y								0.0463
35	CO (RA)	E1	ppmv	y		3.63		5.06		4.32		4.3
36	CO (MHRA)	E1	ppmv	y		2.95		8.69		4.31		5.3
37												
38	Sampling Train	PM	E1									
39	Stack Gas Flowrate		dscfm			10914		10920		10946		10926.7
40	O2		%			8.97		7.73		7.47		8.1
41	Moisture		%			15.7		15.5		15.9		15.7
42	Temperature		°F			511		522.6		517.5		517.0
43												
44	**840C4**					R1		R2		R3		Cond Avg
45												
46	PM	E1	gr/dscf	y		0.0352		0.0353		0.0487		0.0397
47	CO (RA)	E1	ppmv	y		2.06		6.62		7.94		5.5
48	CO (MHRA)	E1	ppmv	y		2.52		5.53		7.68		5.2
49	HCl		ppmv	n		0.37		0.31		0.38		0.35
50	Total Chlorine		ppmv	n		0.0064		0.006		0.00555		0.0
51												
52	Sampling Train	PM/HCl/Cl2	E1									
53	Stack Gas Flowrate		dscfm			10374		10138		9880		10130.7
54	O2		%			7.17		7.27		7.4		7.3
55	Moisture		%			15.3		15.7		15.4		15.5
56	Temperature		°F			505		508		509		507.3
57												
58	HCl	E1	ppmv	y		0.4		0.3		0.4		0.4
59	Cl2	E1	ppmv	y		0.0		0.0		0.0		0.0
60	Total Chlorine	E1	ppmv	y		0.4		0.3		0.4		0.4

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	**Feedstreams**																					
2																						
3																						
4	**840C1**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1	
5																						
6	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Liq non-HW	
8	Feed Class 2				HW		HW		HW		HW		Spike		Spike		Spike		Spike		Non-HW	
9	Feedstream Description				Bldg 30 Monomer		Bldg 30 Monomer		Bldg 30 Monomer		Bldg 30 Monomer		Spike CuSO4		Spike CuSO4		Spike CuSO4		Spike CuSO4		Resim. Dist.	
10	Feed Rate		g/hr		548267		548267		548267		548267								11212		1484236	
11	Thermal Feedrate		MMBtu/hr		20.9		20.9		20.9		20.9										1.6	
12	Heating Value		Btu/lb		17267.0		17267.0		17267.0		17267.0										500.0	
13	Viscosity		cp								6.0											
14	Density		g/ml								0.899											
15	Ash		g/hr	nd	54.41	nd	54.43	nd	55.66				2052		1537		2052		1865	nd	142.5	nd
16	Chlorine		g/hr	nd	54.41	nd	54.43	nd	55.66											nd	142.5	nd
17	Antimony		g/hr	nd	5.44	nd	5.44	nd	5.566											nd	14.25	nd
18	Arsenic		g/hr	nd	0.054	nd	0.054	nd	0.056											nd	0.143	nd
19	Barium		g/hr	nd	0.218	nd	0.218	nd	0.223											nd	0.571	nd
20	Beryllium		g/hr	nd	0.005	nd	0.005	nd	0.006											nd	0.014	nd
21	Cadmium		g/hr	nd	0.002	nd	0.002	nd	0.002											nd	0.006	nd
22	Chromium		g/hr	nd	0.022	nd	0.022	nd	0.022											nd	0.057	nd
23	Lead		g/hr	nd	2.72	nd	2.722	nd	2.783											nd	7.125	nd
24	Mercury		g/hr	nd	0.044	nd	0.044	nd	0.045											nd	0.114	nd
25	Silver		g/hr	nd	2.72	nd	2.722	nd	2.783											nd	7.125	nd
26	Thallium		g/hr	nd	43.52	nd	43.55	nd	44.53											nd	114.002	nd
27																						
28	Stack Gas Flowrate		dscfm		10263		9953		10678				10263		9953		10678				10263	
29	Oxygen		%		7.8		7.4		6.4				7.8		7.4		6.4				7.8	
30																						
31	Estimated Firing Rate		MMBtu/hr																			
32																						
33	*Feedrate MTEC Calculations*																					
34	Ash		mg/dscm	100	3.3	100	3.3	100	2.9	100	3		124.9		93.6		108.5		109	100	8.7	100
35	Chlorine		ug/dscm	100	3311.5	100	3315.4	100	2943.7	100	3190									100	8672.8	100
36	Antimony		ug/dscm	100	331.1	100	331.4	100	294.4	100	319									100	867.3	100
37	Arsenic		ug/dscm	100	3.3	100	3.3	100	3.0	100	3.2									100	8.7	100
38	Barium		ug/dscm	100	13.3	100	13.3	100	11.8	100	12.8									100	34.8	100
39	Beryllium		ug/dscm	100	0.3	100	0.3	100	0.3	100	0.3									100	0.9	100
40	Cadmium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1									100	0.4	100
41	Chromium		ug/dscm	100	1.3	100	1.3	100	1.2	100	1.3									100	3.5	100
42	Lead		ug/dscm	100	165.5	100	165.8	100	147.2	100	160									100	433.6	100
43	Mercury		ug/dscm	100	2.7	100	2.7	100	2.4	100	3									100	6.9	100
44	Silver		ug/dscm	100	165.5	100	165.8	100	147.2	100	160									100	433.6	100
45	Thallium		ug/dscm	100	2648.7	100	2652.7	100	2355.1	100	2552									100	6938.3	100
46																						
47	SVM		ug/dscm	100	165.7	100	165.9	100	147.3	100	160									100	217.0	100
48	LVM		ug/dscm	100	4.9	100	4.9	100	4.4	100	5									100	6.5	100
49																						
50																						
51																						
52																						
53	**840C2**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1	
54																						
55	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3	
56	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Liq non-HW	
57	Feed Class 2				HW		HW		HW		HW		Spike		Spike		Spike		Spike		Non-HW	
58	Feedstream Description				Bldg 30 Monomer		Bldg 30 Monomer		Bldg 30 Monomer		Bldg 30 Monomer		Spike CuSO4		Spike CuSO4		Spike CuSO4		Spike CuSO4		Resim. Dist.	
59	Feed Rate		g/hr		564213		564213		564213		564213								11399		1395426	
60	Thermal Feedrate		MMBtu/hr		21.5		21.5		21.5		21.5										1.5	

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	**Feedstreams**																					
2																						
3																						
4	**840C1**	R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
5																						
6	Feedstream Number	F3		F3		F3		F4		F4		F4		F4		F5		F5		F5		F5
7	Feed Class	Liq non-HW		Liq non-HW		Liq non-HW		NG		NG		NG		NG		Total		Total		Total		Total
8	Feed Class 2	Non-HW		Non-HW		Non-HW		MF		MF		MF		MF		Total		Total		Total		Total
9	Feedstream Description	Resim. Dist.		Resim. Dist.		Resim. Dist.		Nat Gas		Nat Gas		Nat Gas		Nat Gas		Total		Total		Total		Total
10	Feed Rate	1484236		1484236		1484236		446581		446581		446581		446581								
11	Thermal Feedrate	1.6		1.6		1.6		20.4		20.4		20.4		20.4		42.9		42.9		42.9		42.9
12	Heating Value	500.0		500.0		500.0																
13	Viscosity					6.0																
14	Density					1.039																
15	Ash	140.816	nd	139.7	nd																	
16	Chlorine	140.816	nd	139.7	nd																	
17	Antimony	140.816	nd	13.97	nd																	
18	Arsenic	0.141	nd	0.14	nd																	
19	Barium	0.563	nd	0.559	nd																	
20	Beryllium	0.014	nd	0.014	nd																	
21	Cadmium	0.056	nd	0.006	nd																	
22	Chromium	0.073	nd	0.084	nd																	
23	Lead	7.041	nd	6.985	nd																	
24	Mercury	0.113	nd	0.112	nd																	
25	Silver	7.041	nd	6.985	nd																	
26	Thallium	112.652	nd	111.76	nd																	
27																						
28	Stack Gas Flowrate	9953		10678																		10298
29	Oxygen	7.4		6.4																		7.2
30																						
31	Estimated Firing Rate																					45.1
32																						
33	*Feedrate MTEC Calculations*																					
34	Ash	8.6	100	7.4	100	8										137		106		119		120
35	Chlorine	8577.3	100	7388.3	100	8213									100	11984	100	11893	100	10332	100	11403
36	Antimony	8577.3	100	738.8	100	3394									100	1198	100	8909	100	1033	100	3713
37	Arsenic	8.6	100	7.4	100	8									100	12	100	12	100	10	100	11
38	Barium	34.3	100	29.6	100	33									100	48	100	48	100	41	100	46
39	Beryllium	0.9	100	0.7	100	1									100	1.2	100	1.2	100	1.1	100	1.1
40	Cadmium	3.4	100	0.3	100	1									100	0.5	100	3.5	100	0.4	100	1.5
41	Chromium	4.4	100	4.4	100	4									100	4.8	100	5.8	100	5.6	100	5.4
42	Lead	428.9	100	369.4	100	411									100	599	100	595	100	517	100	570
43	Mercury	6.9	100	5.9	100	7									100	10	100	10	100	8	100	9
44	Silver	428.9	100	369.4	100	411									100	599	100	595	100	517	100	570
45	Thallium	6861.8	100	5910.6	100	6570									100	9587	100	9514	100	8266	100	9122
46																						
47	SVM	216.1	100	184.9	100	206									100	383	100	382	100	332	100	366
48	LVM	6.9	100	6.3	100	7									100	11	100	12	100	11	100	11
49																						
50																						
51																						
52																						
53	**840C2**	R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
54																						
55	Feedstream Number	F3		F3		F3		F4		F4		F4		F4		F5		F5		F5		F5
56	Feed Class	Liq non-HW		Liq non-HW		Liq non-HW		NG		NG		NG		NG		Total		Total		Total		Total
57	Feed Class 2	Non-HW		Non-HW		Non-HW		MF		MF		MF		MF		Total		Total		Total		Total
58	Feedstream Description	Resim. Dist.		Resim. Dist.		Resim. Dist.		Nat Gas		Nat Gas		Nat Gas		Nat Gas		Total		Total		Total		Total
59	Feed Rate	1395426		1395426		1395426		446369		446369		446369		446369								
60	Thermal Feedrate	1.5		1.5		1.5		18.9		18.9		18.9		18.9		41.9		41.9		41.9		41.9

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
61	Heating Value		Btu/lb		17367		17367		17367		17367										500	
62	Viscosity		cp								6.0											
63	Density		g/ml								0.888											
64	Ash		g/hr	nd	56.34	nd	55.52	nd	55.74				2052		2052		2052		2052	nd	139.67	nd
65	Chlorine		g/hr		57.46	nd	55.52	nd	55.74											nd	139.67	nd
66	Antimony		g/hr	nd	5.63	nd	5.552	nd	5.574											nd	13.967	nd
67	Arsenic		g/hr	nd	0.056	nd	0.056	nd	0.139											nd	0.14	nd
68	Barium		g/hr	nd	0.225	nd	0.222	nd	0.223											nd	0.559	nd
69	Beryllium		g/hr	nd	0.006	nd	0.006	nd	0.006											nd	0.014	nd
70	Cadmium		g/hr	nd	0.002	nd	0.002	nd	0.004											nd	0.006	nd
71	Chromium		g/hr	nd	0.023	nd	0.022	nd	0.022											nd	0.074	nd
72	Lead		g/hr	nd	2.817	nd	2.776	nd	2.787											nd	6.984	nd
73	Mercury		g/hr	nd	0.045	nd	0.044	nd	0.045											nd	0.112	nd
74	Silver		g/hr	nd	2.817	nd	2.776	nd	2.787											nd	6.984	nd
75	Thallium		g/hr	nd	45.07	nd	44.42	nd	44.591											nd	111.738	nd
76																						
77	Stack Gas Flowrate		dscfm		10638		11286		10234				10638		11286		10234				10638	
78	Oxygen		%		7.7		7.7		7.7				7.7		7.7		7.7				7.7	
79																						
80	Estimated Firing Rate		MMBtu/hr																			
81																						
82	*Feedrate MTEC Calculations*																					
83	Ash		mg/dscm	100	3.3	100	3.0	100	3.4	100	3.2		119.6		112.7		124.3		118.9	100	8.1	100
84	Chlorine		ug/dscm		3348.5	100	3049.6	100	3376.4	66	3258.2									100	8139.2	100
85	Antimony		ug/dscm	100	328.1	100	305.0	100	337.6	100	323.6									100	813.9	100
86	Arsenic		ug/dscm	100	3.3	100	3.1	100	8.4	100	4.9									100	8.2	100
87	Barium		ug/dscm	100	13.1	100	12.2	100	13.5	100	12.9									100	32.6	100
88	Beryllium		ug/dscm	100	0.3	100	0.3	100	0.4	100	0.3									100	0.8	100
89	Cadmium		ug/dscm	100	0.12	100	0.11	100	0.24	100	0.2									100	0.35	100
90	Chromium		ug/dscm	100	1.3	100	1.2	100	1.3	100	1.3									100	4.3	100
91	Lead		ug/dscm	100	164.2	100	152.5	100	168.8	100	162									100	407.0	100
92	Mercury		ug/dscm	100	2.6	100	2.4	100	2.7	100	2.6									100	6.5	100
93	Silver		ug/dscm	100	164.2	100	152.5	100	168.8	100	162									100	407.0	100
94	Thallium		ug/dscm	100	2626.4	100	2439.9	100	2701.1	100	2589									100	6511.5	100
95																						
96	SVM		ug/dscm	100	164.3	100	152.6	100	169.1	100	162									100	407.3	100
97	LVM		ug/dscm	100	5.0	100	4.6	100	10.1	100	7									100	13.3	100
98																						
99																						
100																						
101																						
102	**840C3**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1	
103																						
104	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3	
105	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq non-HW		Liq non-HW		Liq non-HW		Liq non-HW		Spike	
106	Feed Class 2				HW		HW		HW		HW		Non-HW		Non-HW		Non-HW		Non-HW		Spike	
107	Feedstream Description				Spent Monomer		Spent Monomer		Spent Monomer		Spent Monomer		Resim. Dist.		Resim. Dist.		Resim. Dist.		Resim. Dist.		Ash Spike	
108	Feed Rate		lb/hr		1202		1238		1226				2635		2575		2573				4.93	
109	Heating Value		Btu/lb		18667		18667		18667		18667		250		250		250		250			
110	Viscosity		cp								3								3			
111	Density		g/ml								0.904								1.066			
112	Ash		%wt	nd	0.003		0.006	nd	0.003			nd	0.003	nd	0.003		0.01				100	
113	Chlorine		mg/kg		196	nd	200	nd	200			nd	200	nd	200	nd	200					
114	Antimony		mg/kg	nd	10	nd	10	nd	10			nd	10	nd	10	nd	10					
115	Arsenic		mg/kg		0.032	nd	0.017	nd	0.017			nd	0.017	nd	0.017	nd	0.017					
116	Barium		mg/kg	nd	0.39	nd	0.4	nd	0.39			nd	0.4	nd	0.38	nd	0.4					
117	Beryllium		mg/kg	nd	0.003	nd	0.003	nd	0.003			nd	0.003	nd	0.003	nd	0.003					
118	Cadmium		mg/kg	nd	0.003	nd	0.003	nd	0.003			nd	0.003	nd	0.003	nd	0.003					
119	Chromium		mg/kg		0.052		0.084	nd	0.033				0.083		0.063		0.084					
120	Lead		mg/kg	nd	4.9	nd	5	nd	4.9			nd	5.0	nd	4.8	nd	5.0					

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
61	Heating Value	500		500		500																
62	Viscosity					6.00																
63	Density					1.035																
64	Ash	139.428		139.428	nd	139.541																
65	Chlorine	139.428		139.428	nd	139.541																
66	Antimony	13.943		13.943	nd	13.954																
67	Arsenic	0.139		0.139	nd	0.14																
68	Barium	0.558		0.558	nd	0.559																
69	Beryllium	0.014		0.014	nd	0.014																
70	Cadmium	0.006		0.006	nd	0.006																
71	Chromium	0.081		0.084	nd	0.079																
72	Lead	6.971		6.971	nd	6.979																
73	Mercury	0.112		0.112	nd	0.112																
74	Silver	6.971		6.971	nd	6.976																
75	Thallium	111.542		111.542	nd	111.656																
76																						
77	Stack Gas Flowrate	11286		10234																		10719.33
78	Oxygen	7.7		7.7																		7.7
79																						
80	Estimated Firing Rate																					45.3
81																						
82	*Feedrate MTEC Calculations*																					
83	Ash	7.7	100	8.4	100	8.1									9	131	9	123	9	136	9	130
84	Chlorine	7658.6	100	8445.8	100	8081.2									100	11488	100	10708	100	11822	100	11339
85	Antimony	765.9	100	844.6	100	808.1									100	1142	100	1071	100	1182	100	1131.7
86	Arsenic	7.6	100	8.4	100	8.1									100	11	100	11	100	17	100	13.0
87	Barium	30.7	100	33.8	100	32.3									100	46	100	43	100	47	100	45.3
88	Beryllium	0.8	100	0.8	100	0.8									100	1	100	1	100	1	100	1.2
89	Cadmium	0.33	100	0.36	100	0.3									100	0	100	0	100	1	100	0.5
90	Chromium	4.4	100	5.1	100	4.6									100	6	100	6	100	6	100	5.9
91	Lead	382.9	100	422.3	100	404.1									100	571	100	535	100	591	100	565.9
92	Mercury	6.2	100	6.8	100	6.5									100	9	100	9	100	10	100	9.1
93	Silver	382.9	100	422.3	100	404.1									100	571	100	535	100	591	100	565.9
94	Thallium	6126.8	100	6756.7	100	6465.0									100	9138	100	8567	100	9458	100	9054.1
95																						
96	SVM	383.2	100	422.6	100	404.4									100	571.6	100	535.8	100	591.7	100	566
97	LVM	12.9	100	14.4	100	13.5									100	18.2	100	17.5	100	24.5	100	20.1
98																						
99																						
100																						
101																						
102	**840C3**	R2		R3		Cond Avg										R1		R2		R3		Cond Avg
103																						
104	Feedstream Number	F3		F3		F3										F4		F4		F4		F4
105	Feed Class	Spike		Spike		Spike										Total		Total		Total		Total
106	Feed Class 2	Spike		Spike		Spike										Total		Total		Total		Total
107	Feedstream Description	Ash Spike		Ash Spike		Ash Spike										Total		Total		Total		Total
108	Feed Rate	4.94		4.89																		
109	Heating Value																					
110	Viscosity																					
111	Density																					
112	Ash	100		100		2233																
113	Chlorine																					
114	Antimony																					
115	Arsenic																					
116	Barium																					
117	Beryllium																					
118	Cadmium																					
119	Chromium																					
120	Lead																					

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
121	Mercury		mg/kg	nd	0.08	nd	0.08	nd	0.08			nd	0.08	nd	0.08	nd	0.08					
122	Silver		mg/kg	nd	1	nd	1	nd	1			nd	1.0	nd	1.0	nd	1.0					
123	Thallium		mg/kg	nd	20	nd	20	nd	20			nd	20	nd	19	nd	20					
124																						
125	Stack Gas Flowrate		dscfm		10914		10920		10946				10914		10920		10946				10914	
126	Oxygen		%		8.97		7.73		7.47				8.97		7.73		7.47				8.97	
127																						
128	Thermal Feedrate		MMBtu/hr		22.4		23.1		22.9		22.8		0.7		0.6		0.6		0.6			
129	Estimated Firing Rate		MMBtu/hr																			
130																						
131	*Feedrate MTEC Calculations*																					
132	Ash		mg/dscm	100	1.03		1.92	100	0.93	51	1.3	100	2.25	100	2.00		6.50	40	3.6		140.41	
133	Chlorine		ug/dscm		6717	100	6396	100	6197	65	6436.7	100	15025	100	13303	100	13007	100	13778.2			
134	Antimony		ug/dscm	100	343	100	320	100	310	100	324.1	100	751	100	665	100	650	100	688.9			
135	Arsenic		ug/dscm		1.1	100	0.5	100	0.5	49	0.7	100	1.3	100	1.1	100	1.1	100	1.2			
136	Barium		ug/dscm	100	13	100	13	100	12	100	12.7	100	30	100	25	100	26	100	27.1			
137	Beryllium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.2	100	0.2	100	0.2	100	0.2			
138	Cadmium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.2	100	0.2	100	0.2	100	0.2			
139	Chromium		ug/dscm		1.8		2.7	100	1.0	19	1.8		6.2		4.2		5.5	0	5.3			
140	Lead		ug/dscm	100	168	100	160	100	152	100	159.9	100	376	100	319	100	325	100	340.0			
141	Mercury		ug/dscm	100	2.7	100	2.6	100	2.5	100	2.6	100	6.0	100	5.3	100	5.2	100	5.5			
142	Silver		ug/dscm	100	34	100	32	100	31	100	32.4	100	75	100	67	100	65	100	68.9			
143	Thallium		ug/dscm	100	685	100	640	100	620	100	648.2	100	1502	100	1264	100	1301	100	1355.6			
144																						
145	SVM		ug/dscm	100	168.0	100	160.0	100	151.9	100	160.0	100	375.8	100	319.5	100	325.4	100	340.2			
146	LVM		ug/dscm	3	2.98	19	3.33	100	1.64	30	2.6	19	7.74	24	5.52	19	6.76	21	6.7			
147																						
148																						
149																						
150	**840C4**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1	
151																						
152	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3	
153	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq non-HW		Liq non-HW		Liq non-HW		Liq non-HW		Spike	
154	Feed Class 2				HW		HW		HW		HW		Non-HW		Non-HW		Non-HW		Non-HW		Spike	
155	Feedstream Description				Spent Monomer		Spent Monomer		Spent Monomer		Spent Monomer		Resim. Dist.		Resim. Dist.		Resim. Dist.		Resim. Dist.		Ash Spike	
156	Feed Rate		lb/hr		1232		1229		1228		557919		2626		2596		2605		1183424		5.0	
157	Heating Value		Btu/lb		16300		16300		16300		16300		250		250		250		250			
158	Viscosity		cp								3								3			
159	Density		g/ml								0.909								1.064			
160	Ash		wt%		0.003		0.005	nd	0.003				0.003		0.003	nd	0.003				100	
161	Chlorine		mg/kg		226	nd	200	nd	200			nd	200.0	nd	200.0	nd	200.0					
162	Antimony		mg/kg	nd	10	nd	10	nd	10			nd	10	nd	10	nd	10					
163	Arsenic		mg/kg	nd	0.017	nd	0.017	nd	0.017			nd	0.017	nd	0.017	nd	0.017					
164	Barium		mg/kg	nd	0.39	nd	0.38	nd	0.39			nd	0.4	nd	0.39	nd	0.4					
165	Beryllium		mg/kg	nd	0.003	nd	0.003	nd	0.003			nd	0.003	nd	0.003	nd	0.003					
166	Cadmium		mg/kg	nd	0.003	nd	0.003	nd	0.003			nd	0.003	nd	0.003	nd	0.003					
167	Chromium		mg/kg	nd	0.033	nd	0.033	nd	0.033				0.041		0.064		0.041					
168	Lead		mg/kg	nd	4.9	nd	4.8	nd	4.9			nd	5.0	nd	4.9	nd	5.0					
169	Mercury		mg/kg	nd	0.08	nd	0.08	nd	0.08			nd	0.08	nd	0.08	nd	0.08					
170	Silver		mg/kg	nd	1.0	nd	1.0	nd	1.0			nd	1.0	nd	1.0	nd	1.0					
171	Thallium		mg/kg	nd	20	nd	19	nd	19			nd	20	nd	20	nd	20					
172																						
173	Stack Gas Flowrate		dscfm		10374		10138		9880				10374		10138		9880				10374	
174	Oxygen		%		7.17		7.27		7.4				7.17		7.27		7.4				7.17	
175																						
176	Thermal Feedrate		MMBtu/hr		20.1		20.0		20.0		20.0		0.7		0.6		0.7		0.7			
177	Estimated Firing Rate		MMBtu/hr																			
178																						
179	*Feedrate MTEC Calculations*																					
180	Ash		mg/dscm		1.0		1.7	100	1.0	28	1.2		2.1		2.1	100	2.2	34	2.1		129.3	

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
121	Mercury																					
122	Silver																					
123	Thallium																					
124																						
125	Stack Gas Flowrate	10920		10946																		10926.67
126	Oxygen	7.73		7.47																		8.06
127																						
128	Thermal Feedrate															23		24		24		23
129	Estimated Firing Rate																					44.9
130																						
131	*Feedrate MTEC Calculations*																					
132	Ash	127.74		123.48		130.5									2	144	2	132	1	131	2	135
133	Chlorine														69	21741	100	19699	100	19204	89	20215
134	Antimony														100	1094	100	985	100	960	100	1013
135	Arsenic														54	2.4	100	1.7	100	1.6	81	1.9
136	Barium														100	43	100	38	100	38	100	40
137	Beryllium														100	0.33	100	0.30	100	0.29	100	0.30
138	Cadmium														100	0.33	100	0.30	100	0.29	100	0.30
139	Chromium														0	8.0	0	6.9	16	6.5	5	7.1
140	Lead														100	544	100	479	100	477	100	500
141	Mercury														100	9	100	8	100	8	100	8
142	Silver														100	109	100	98	100	96	100	101
143	Thallium														100	2188	100	1903	100	1920	100	2004
144																						
145	SVM														100	544	100	479	100	477	100	500
146	LVM														15	10.7	22	8.8	35	8.4	23	9.3
147																						
148																						
149																						
150	**840C4**	R2		R3		Cond Avg										R1		R2		R3		Cond Avg
151																						
152	Feedstream Number	F3		F3		F3										F4		F4		F4		F4
153	Feed Class	Spike		Spike		Spike										Total		Total		Total		Total
154	Feed Class 2	Spike		Spike		Spike										Total		Total		Total		Total
155	Feedstream Description	Ash Spike		Ash Spike		Ash Spike										Total		Total		Total		Total
156	Feed Rate	5.0		4.9																		
157	Heating Value																					
158	Viscosity																					
159	Density																					
160	Ash	100		100		2248																
161	Chlorine																					
162	Antimony																					
163	Arsenic																					
164	Barium																					
165	Beryllium																					
166	Cadmium																					
167	Chromium																					
168	Lead																					
169	Mercury																					
170	Silver																					
171	Thallium																					
172																						
173	Stack Gas Flowrate	10138		9880		10130.7																10130.67
174	Oxygen	7.27		7.4		7.3																7.28
175																						
176	Thermal Feedrate															20.7		20.7		20.7		20.7
177	Estimated Firing Rate																					44.1
178																						
179	*Feedrate MTEC Calculations*																					
180	Ash	133.3		137.8		133.4									0	132.3	0	137.0	2	141.0	1	136.8

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
181	Chlorine		ug/dscm		7264.4	100	6610.1	100	6841.9	65	6905.4	100	13702.6	100	13962.3	100	14514.0	100	14059.7			
182	Antimony		ug/dscm	100	321.4	100	330.5	100	342.1	100	331.3	100	685.1	100	698.1	100	725.7	100	703.0			
183	Arsenic		ug/dscm	100	0.5	100	0.6	100	0.6	100	0.6	100	1.2	100	1.2	100	1.2	100	1.2			
184	Barium		ug/dscm	100	12.5	100	12.6	100	13.3	100	12.8	100	27.4	100	27.2	100	29.0	100	27.9			
185	Beryllium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.2	100	0.2	100	0.2	100	0.2			
186	Cadmium		ug/dscm	100	0.1	100	0.1	100	0.1	100	0.1	100	0.2	100	0.2	100	0.2	100	0.2			
187	Chromium		ug/dscm	100	1.1	100	1.1	100	1.1	100	1.1		2.8		4.5		3.0	0	3.4			
188	Lead		ug/dscm	100	157.5	100	158.6	100	167.6	100	161.3	100	342.6	100	342.1	100	362.9	100	349.2			
189	Mercury		ug/dscm	100	2.6	100	2.6	100	2.7	100	2.7	100	5.5	100	5.6	100	5.8	100	5.6			
190	Silver		ug/dscm	100	32.1	100	33.1	100	34.2	100	33.1	100	68.5	100	69.8	100	72.6	100	70.3			
191	Thallium		ug/dscm	100	642.9	100	628.0	100	650.0	100	640.3	100	1370.3	100	1396.2	100	1451.4	100	1406.0			
192																						
193	SVM		ug/dscm	100	157.6	100	158.7	100	167.7	100	161.4	100	342.8	100	342.3	100	363.1	100	349.4			
194	LVM		ug/dscm	100	1.7	100	1.8	100	1.8	100	1.8	33	4.2	24	5.9	33	4.4	29	4.8			
195																						
196																						
197	**BIF Feedrate Limits**																					
198																						
199	Antimony		g/hr								245.0											
200	Arsenic		g/hr								1.9											
201	Barium		g/hr								40909.0											
202	Beryllium		g/hr								3.4											
203	Cadmium		g/hr								4.6											
204	Chromium		g/hr								0.7											
205	Lead		g/hr								73.6											
206	Mercury		g/hr								65.5											
207	Silver		g/hr								2455.0											
208	Thallium		g/hr								409.0											
209	Chlorine		g/hr								5950.0											

	B	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
181	Chlorine														65	20966.9	100	20572.4	100	21356.0	88	20965.1
182	Antimony														100	1006.6	100	1028.6	100	1067.8	100	1034.3
183	Arsenic														100	1.7	100	1.7	100	1.8	100	1.8
184	Barium														100	39.9	100	39.8	100	42.4	100	40.7
185	Beryllium														100	0.3	100	0.3	100	0.3	100	0.3
186	Cadmium														100	0.3	100	0.3	100	0.3	100	0.3
187	Chromium														27	3.9	20	5.6	28	4.1	24	4.5
188	Lead														100	500.1	100	500.7	100	530.5	100	510.4
189	Mercury														100	8.1	100	8.2	100	8.5	100	8.3
190	Silver														100	100.7	100	102.9	100	106.8	100	103.4
191	Thallium														100	2013.1	100	2024.2	100	2101.4	100	2046.2
192																						
193	SVM														100	500.4	100	501.0	100	530.8	100	510.7
194	LVM														52	5.9	41	7.6	52	6.2	48	6.6
195																						
196																						
197	**BIF Feedrate Limits**																					
198																						
199	Antimony																					
200	Arsenic																					
201	Barium																					
202	Beryllium																					
203	Cadmium																					
204	Chromium																					
205	Lead																					
206	Mercury																					
207	Silver																					
208	Thallium																					
209	Chlorine																					

	A	B	C
1	**Process Information**		
2			
3	**840C1**		Cond Avg
4			
5	Steam Prod Rate	lb/hr	29500
6			
7	**840C2**		Cond Avg
8			
9	Steam Prod Rate	lb/hr	30000
10			
11	**840C3**		Cond Avg
12			
13	Steam Prod Rate	lb/hr	29734
14	Combustion Zone Temp	°F	1438
15			
16	**840C4**		Cond Avg
17			
18	Steam Prod Rate	lb/hr	30467
19	Combustion Zone Temp	°F	1465