	B	C
1	**Source Description**	
2		
3	Phase I ID No.	3018
4	EPA ID No.	PRD090021056
5	Facility Name	Squibb Manufacturing, Inc.
6	Facility Location	
7	City	Humacao
8	State	Puerto Rico
9	Unit ID Name/No.	Caloric 1 unit
10	Other Sister Facilities	Caloric 2 unit, Trane incinerator
11	Number of Sister Facilities	2
12	Combustor Class	Onsite incinerator
13	Combustor Type	Liquid injection
14	Combustor Characteristics	Vertically-fired liquid injection incinerator. Model No. AVS-1600 installed in 1988
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	Q/VS/PT/CHEAF
18	APCS General Class	WQ, HEWS, LEWS
19	APCS Characteristics	Quench, venturi scrubber. CHEAF to enhance PM removal. Packed bed tower reduces the HCl emissions by treating the effluent gas with caustic soda solution.
20	Hazardous Wastes	Liq
21	Haz Waste Description	Water spent solvent generated during the manufacuring process which are not amenable to recovery or re-use.
22	Supplemental Fuel	Misc fuel
23		Kerosene
24		
25	Stack Characteristics	
26	Diameter (ft)	1.67
27	Height (ft)	47.8
28	Gas Velocity (ft/sec)	
29	Gas Temperature (°F)	
30		
31	Permitting Status	Tier I for all metal except Hg, As, Cr (tier III)
32	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**3018C1**	
4		
5	Report Name/Date	Final Trial Burn Report for Caloric 1 Incinerator. November 1998
6	Report Prepare	ENSR Corporation
7	Testing Firm	ENSR Corporation
8	Testing Dates	August 30-31, 1998
9	Cond Dates	Aug-98
10	Condition Descr	Trial burn, min oper temp cond
11	Content	PM, DRE, HCl/Cl2, CO, PCDD/F
12		
13	**3018C2**	
14		
15	Report Name/Date	Final Trial Burn Report for Caloric 1 Incinerator. November 1998
16	Report Prepare	ENSR Corporation
17	Testing Firm	ENSR Corporation
18	Testing Dates	August 31 and September 1, 1998
19	Cond Dates	Aug-98
20	Condition Descr	Trial burn, elevated oper temp cond
21	Content	PM, metals, HCl/Cl2, CO, PCDD/F

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**Stack Gas Emissions 1**													
2														
3		Comments	Units	7% O2										
4														
5	**3018C1**	**Trial Burn**				R1		R2		R3		Cond Avg		
6														
7	PM	E1	gr/dscf	y		0.0739		0.0715		0.0694		0.0716		
8	CO (RA)	E1	ppmv	y		11		9		6.8		8.93		
9														
10	NOx		ppmv	n		84.5		86.7		80.80				
11	HCl		lb/hr			0.0183		0.0232		0.079				
12	Cl2		lb/hr			0.0126		0.0154		0.0141				
13														
14	POHC DRE	Monochlorobenzene												
15	POHC Feedrate		lb/hr			10.6		10.6		10.6				
16	Emission Rate	E2	lb/hr			2.70E-05		3.20E-05		6.50E-05				
17	DRE	E2	%			99.9998		99.9997		99.9994				
18														
19	POHC DRE	1,2-Dichlorobenzene												
20	POHC Feedrate		lb/hr			5.3		5.3		5.3				
21	Emission Rate	E2	lb/hr			1.40E-05		2.10E-05		3.50E-05				
22	DRE	E2	%			99.9997		99.9996		99.9993				
23														
24	POHC DRE	Methylene Chloride												
25	POHC Feedrate		lb/hr			559.5		559.02		557.71				
26	Emission Rate	E2	lb/hr		nd	6.80E-03	nd	6.80E-03	nd	6.80E-03				
27	DRE	E2	%			99.9988		99.9988		99.9988				
28														
29	Sampling Train	PM, HCl/Cl2	E1											
30	Stack Gas Flowrate		dscfm			6561		6369		6426		6452.0		
31	O2		%			6.8		6.8		7		6.9		
32	Moisture		%			13.3		13.2		12.2		12.9		
33	Temperature		°F			178		176		175		176.3		
34														
35	Sampling Train	DRE	E2											
36	Stack Gas Flowrate		dscfm			6427		6405		6470		6434		
37	O2		%											
38	Moisture		%											
39	Temperature		°F											
40														
41	Sampling Train	PCDD/F	E3											
42	Stack Gas Flowrate		dscfm			6454		6481		6569		6501.3		
43	O2		%			6.8		6.8		7		6.9		
44	Moisture		%			13.5		12.9		12.1		12.8		
45	Temperature		°F											
46														
47	NOx	E1	ppmv	y		83.3		85.5		80.8		83		
48	HCl	E1	ppmv	y		0.5		0.6		2.2		1.1		
49	Cl2	E1	ppmv	y		0.2		0.3		0.3		0.3		
50	Total Chlorine	E1	ppmv	y		0.93		1.20		2.70		1.6		
51														
52	**3018C2**	**Trial Burn**				R1		R2		R3		R4		Cond Avg
53														
54	PM	E1	gr/dscf	y		0.0727		0.0375		0.0708		0.0671		0.0620
55	CO (RA)	E1	ppmv	y		5.1		5.2				12.10		7.5
56														
57	NOx		ppmv	n		97.4		100.1				95.50		
58	HCl		lb/hr			0.0129		0.3069				0.0156		
59	Cl2		lb/hr			0.0119		0.0972				0.0104		
60														
61	Chromium (Hex)		ug/dscm	n	nd	0.41	nd	0.41			nd	0		
62	Arsenic		ug/dscm	n	nd	1.13	nd	1.11			nd	1.10		
63	Beryllium		ug/dscm	n	nd	0.11	nd	0.11			nd	0.11		
64	Cadmium		ug/dscm	n	nd	0.23	nd	0.22				0.36		
65	Chromium		ug/dscm	n	nd	0.79		5.57			nd	3.32		
66	Mercury		ug/dscm	n		7.57		7.14				7.06		
67	Antimony		ug/dscm	n		1.93		2.62				3.96		
68	Barium		ug/dscm	n	nd	1.1	nd	1.62			nd	1.61		
69	Lead		ug/dscm	n	nd	2.27		3.10				3.07		
70	Silver		ug/dscm	n	nd	1.13	nd	1.11			nd	1.07		
71	Thallium		ug/dscm	n	nd	6.8	nd	6.64			nd	6.43		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
72	Nickel		ug/dscm	n	nd	1.13		1.88				1.11		
73	Selenium		ug/dscm	n	nd	6.8	nd	6.64			nd	6.43		
74														
75	Sampling Train	PM, HCl/Cl2	E1											
76	Stack Gas Flowrate		dscfm			6120		5798		6166		6026.0		6027.5
77	O2		%			6		6		6		6.0		6.0
78	Moisture		%			11.2		13.6		15.3		15.5		13.9
79	Temperature		°F			178		176		182		182.0		179.5
80														
81	Sampling Train	metals	E2											
82	Stack Gas Flowrate		dscfm			6250		6182				6204.0		6212.0
83	O2		%			6		6				6.0		6.0
84	Moisture		%			52.1		50.9				55.6		52.9
85	Temperature		°F			182		180				184.0		182.0
86														
87	Sampling Train	Cr+6	E3											
88	Stack Gas Flowrate		dscfm			6001		6097				6164.0		6087.3
89	O2		%			6		6				6.0		6.0
90	Moisture		%			14.1		14.2				10.8		13.0
91	Temperature		°F			176		176				179.0		177.0
92														
93	Sampling Train	PCDD/F	E4											
94	Stack Gas Flowrate		dscfm			6339		6260				6311.0		6303.3
95	O2		%			6		6				6.0		6.0
96	Moisture		%			13.2		14.1				15.1		14.1
97	Temperature		°F											
98														
99	NOx	E1	ppmv	y		90.9		93.4				89.1		91.2
100	HCl	E1	ppmv	y		0.4		8.8				0.4		3.2
101	Cl2	E1	ppmv	y		0.2		1.7				0.2		0.7
102	Total Chlorine	E1	ppmv	y		0.77		12.32				0.80		4.6
103														
104	Chromium (Hex)	E3	ug/dscm	y	nd	0.38	nd	0.38			nd	0.38	100	0.4
105	Arsenic	E2	ug/dscm	y	nd	1.05	nd	1.04			nd	1.03	100	1.0
106	Beryllium	E2	ug/dscm	y	nd	0.10	nd	0.10			nd	0.10	100	0.1
107	Cadmium	E2	ug/dscm	y	nd	0.21	nd	0.21				0.34	100	0.3
108	Chromium	E2	ug/dscm	y	nd	0.74		5.20			nd	3.10	100	3.0
109	Mercury	E2	ug/dscm	y		7.07		6.66				6.59		6.8
110	Antimony	E2	ug/dscm	y		1.80		2.45				3.70		2.6
111	Barium	E2	ug/dscm	y	nd	1.03	nd	1.51			nd	1.50		1.3
112	Lead	E2	ug/dscm	y	nd	2.12		2.89				2.87	100	2.6
113	Silver	E2	ug/dscm	y	nd	1.05	nd	1.04			nd	1.00	100	1.0
114	Thallium	E2	ug/dscm	y	nd	6.35	nd	6.20			nd	6.00	100	6.2
115	Nickel	E2	ug/dscm	y	nd	1.05		1.75				1.04		1.3
116	Selenium	E2	ug/dscm	y	nd	6.35	nd	6.20			nd	6.00		6.2
117	SVM	E2	ug/dscm	y	100	2.33	100	3.10			100	3.20	100	2.9
118	LVM	E2	ug/dscm	y	100	1.89	17.97	6.34			100	4.23	58	4.2

	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	AC
1	**Feedrate Calculations**																											
2																												
3																												
4	**3018C1**	**Trial burn**			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	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Misc. Fuel		Misc. Fuel		Misc. Fuel		Misc. Fuel	
8	Feed Class 2				HW		HW		HW		HW		Spike		Spike		Spike		Spike		MF		MF		MF		MF	
9	Feedstream Description				Liq waste		Liq waste		Liq waste		Liq waste		Spike		Spike		Spike		Spike		Kerosene		Kerosene		Kerosene		Kerosene	
10	Feed Rate		lb/hr		4567		4549		4516		4544.0		562		562		562		562.0									
11	Feed Rate		gpm																		2.1		2.07		2		2.1	
12	Thermal Feedrate		MM Btu/hr																									
13	Heating Value		Btu/lb		851.0		760		755		788.7																	
14	Density		g/ml		1.014		1.01		1.014												0.965		0.965		0.965			
15	Viscosity		cSt		1.22		1.219		1.22																			
16	Ash		%		3.9		3.9		3.86		3.9										0.0062		0.0062		0.0062		0.0	
17	Chlorine		lb/hr		107		110.6		108		108.4		462.4		460		472.3		472.3									
18																												
19	Stack Gas Flowrate		dscfm		6561		6369		6426		6452		6561		6369		6426		6452		6561		6369		6426		6452	
20	Oxygen		%		7		7		7		7		7		7		7		7		7		7		7		7	
21																												
22	Thermal Feedrate		MMBtu/hr		3.9		3.5		3.4		3.6																	
23	Estimated Firing Rate		MMBtu/hr		29.6		29.6		29.6		29.6																	
24																												
25	*Feedrate MTEC Calculations*																											
26	Ash		mg/dscm		7101.2		7324.1		7253.0		7226.1										2.5		2.6		2.5		2.5	
27	Chlorine		ug/dscm		4286988		4577641		4493670		4452766.3		18578286		19039013		19651486		19089595.1									
28																												
29	**3018C2**	**Trial burn**			R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
30																												
31	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3	
32	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Spike		Spike		Spike		Spike		Spike		Misc. Fuel		Misc. Fuel	
33	Feed Class 2				HW		HW		HW		HW		HW		Spike		Spike		Spike		Spike		Spike		MF		MF	
34	Feedstream Description				Liq waste		Liq waste		Liq waste		Liq waste		Liq waste		Spike		Spike		Spike		Spike		Spike		Kerosene		Kerosene	
35	Feed Rate		lb/hr		4458		4313		4489		4520		4445.0		562		562		561		562		561.8					
36	Feed Rate		gpm																						2.2		2.2	
37	Thermal Feedrate		MM Btu/hr																									
38	Heating Value		Btu/lb		849.0		598		1327		1010		946.0															
39	Density		g/ml		1.024		1.014		1.008		1.015				1		1		1		1				0.965		0.965	
40	Viscosity		cSt		1.224		1.223		1.384		1.318																	
41	Ash		%		3.6		3.5		3.46		3.3		3.5												0.019		0.019	
42	Chlorine		lb/hr		110		104.6		105.4		103.3		105.7		461.7		461.9		461.9		462.9		462.1					
43	Mercury		lb/hr		2.22E-05		1.96E-05		1.16E-05		1.43E-05				0.00020		0.00020		0.00020		0.00020		0.0					
44	Silver		lb/hr		6.53E-05		6.38E-05		4.01E-05		4.90E-05																	
45	Arsenic		lb/hr	nd	8.71E-04	nd	8.51E-04	nd	8.91E-04	nd	8.91E-04				0.00033		0.00033		0.00033		0.00033							
46	Barium		lb/hr		1.31E-04		9.36E-05		9.80E-05		8.91E-05																	
47	Beryllium		lb/hr	nd	4.35E-06	nd	4.25E-06	nd	4.45E-06	nd	4.45E-06																	
48	Cadmium		lb/hr	nd	8.71E-06	nd	8.51E-06	nd	8.91E-06	nd	8.91E-06																	
49	Chromium		lb/hr		1.61E-03		1.57E-03		1.20E-03		1.29E-03																	
50	Nickel		lb/hr		9.58E-04		9.78E-04		8.46E-04		8.91E-04																	
51	Lead		lb/hr		1.83E-04		1.02E-04		2.32E-04		1.83E-04																	
52	Antimony		lb/hr	nd	1.31E-04	nd	1.28E-04	nd	1.34E-04	nd	1.34E-04																	
53	Selenium		lb/hr	nd	2.61E-04	nd	2.55E-04	nd	2.67E-04	nd	2.67E-04																	
54	Thallium		lb/hr	nd	2.61E-04	nd	2.55E-04	nd	2.67E-04	nd	2.67E-04																	
55	Chromium (Hex)		lb/hr												0.0090		0.0090		0.0090		0.0090							
56																												
57	Stack Gas Flowrate		dscfm		6120		5798		6166		6026		6027.5		6120		5798		6166		6026		6027.5		6120		5798	
58	Oxygen		%		6		6		6		6		6		6		6		6		6		6		6		6	
59																												
60	Thermal Feedrate		MMBtu/hr		3.8		2.6		6.0		4.6		4.2															

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	**Feedrate Calculations**															
2																
3																
4	**3018C1**	R1		R2		R3		Cond Avg								
5																
6	Feedstream Number	F4		F4		F4		F4								
7	Feed Class	Total		Total		Total		Total								
8	Feed Class 2	Total		Total		Total		Total								
9	Feedstream Description	Total		Total		Total		Total								
10	Feed Rate	5129.0		5111.0		5078.0		5106.0								
11	Feed Rate															
12	Thermal Feedrate															
13	Heating Value															
14	Density															
15	Viscosity															
16	Ash															
17	Chlorine															
18																
19	Stack Gas Flowrate															
20	Oxygen															
21																
22	Thermal Feedrate	3.9		3.5		3.4		3.6								
23	Estimated Firing Rate	29.6		29.6		29.6		29.6								
24																
25	*Feedrate MTEC Calculat*															
26	Ash							7103.7		7326.6		7255.5		7228.6		7228.6
27	Chlorine							22865273.8		23616654.5		24145156.0		23542361.5		23542361.5
28																
29	**3018C2**	R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg
30																
31	Feedstream Number	F3		F3		F3		F4		F4		F4		F4		F4
32	Feed Class	Misc. Fuel		Misc. Fuel		Misc. Fuel		Total		Total		Total		Total		Total
33	Feed Class 2	MF		MF		MF		Total		Total		Total		Total		Total
34	Feedstream Description	Kerosene		Kerosene		Kerosene		Total		Total		Total		Total		Total
35	Feed Rate							4875		5050		5082		5007		
36	Feed Rate	2		2.1		2.1		2.2		2.0		2.1		2.1		
37	Thermal Feedrate															
38	Heating Value															
39	Density	0.965		0.965												
40	Viscosity															
41	Ash	0.019		0.019				4		3		3		3		
42	Chlorine							567		567		566		568		
43	Mercury							2.2E-04		2.1E-04		2.1E-04		2.0E-04		
44	Silver															
45	Arsenic															
46	Barium															
47	Beryllium															
48	Cadmium															
49	Chromium															
50	Nickel															
51	Lead															
52	Antimony															
53	Selenium															
54	Thallium															
55	Chromium (Hex)															
56																
57	Stack Gas Flowrate	6166		6026		6027.5		6120		5798		6166		6026		6027.5
58	Oxygen	6		6		6		6		6		6		6		6
59																
60	Thermal Feedrate							2.6		6.0		4.6		4.2		

	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	AC
61	Estimated Firing Rate		MMBtu/hr		29.1		29.1		29.1		29.1		29.1															
62																												
63	*Feedrate MTEC Calculations*																											
64	Ash		mg/dscm		6580.4		6497.2		6286.0		6177.0		6385.2												8.2		8.7	
65	Chlorine		ug/dscm		4469038		4502030		4265717		4277856		4378660.3		18826232		19880381		18693877		19169598		19142521.7					
66	Mercury		ug/dscm		0.91		0.84		0.47		0.59		0.7		8.08		8.53		8.02		8.21		8.2					
67	Silver		ug/dscm		2.66		2.75		1.62		2.03		2.3															
68	Arsenic		ug/dscm	100	35.50	100	36.61	100	36.05	100	36.88	100	36.3		13.47		14.22		13.37		13.68		13.7					
69	Barium		ug/dscm		5.33		4.03		3.97		3.69		4.3															
70	Beryllium		ug/dscm	100	0.18	100	0.18	100	0.18	100	0.18	100	0.2															
71	Cadmium		ug/dscm	100	0.36	100	0.37	100	0.36	100	0.37	100	0.4															
72	Chromium		ug/dscm		65.68		67.74		48.66		53.48		58.9															
73	Nickel		ug/dscm		39.05		42.11		34.24		36.88		38.1															
74	Lead		ug/dscm		7.46		4.39		9.37		7.56		7.2															
75	Antimony		ug/dscm	100	5.33	100	5.49	100	5.41	100	5.53	100	5.4															
76	Selenium		ug/dscm	100	10.65	100	10.98	100	10.81	100	11.06	100	10.9															
77	Thallium		ug/dscm	100	10.65	100	10.98	100	10.81	100	11.06	100	10.9															
78	Chromium (Hex)		ug/dscm												367.34		387.74		364.60		373.07		373.2					
79	SVM		ug/dscm	4.55	7.81	7.7	4.76	3.7	9.73	4.65	7.93	5	7.6															
80	LVM		ug/dscm	35.2	101.36	35	104.53	43	84.89	40.9	90.55	38	95.3		380.81		401.96		377.97		386.75		386.9					

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
61	Estimated Firing Rate							29.1		29.1		29.1		29.1		
62																
63	*Feedrate MTEC Calculat*															
64	Ash	7.4		8.0		8.1E+00		6588.6		6505.9		6293.5		6185.0		6393
65	Chlorine							23295269.8		24382411.0		22959594.1		23447453.4		23521182
66	Mercury							9.0		9.4		8.5		8.8		8.9
67	Silver							2.7		2.7		1.6		2.0		2.3
68	Arsenic						72	49.0	72	50.8	73	49.4	73	50.6	73	49.9
69	Barium							5.3		4.0		4.0		3.7		4.3
70	Beryllium						100	0.2	100	0.2	100	0.2	100	0.2	100	0.2
71	Cadmium						100	0.4	100	0.4	100	0.4	100	0.4	100	0.4
72	Chromium							65.7		67.7		48.7		53.5		58.9
73	Nickel							39.1		42.1		34.2		36.9		38.1
74	Lead							7.5		4.4		9.4		7.6		7.2
75	Antimony						100	5.3	100	5.5	100	5.4	100	5.5	100	5.4
76	Selenium						100	10.7	100	11.0	100	10.8	100	11.1	100	10.9
77	Thallium						100	10.7	100	11.0	100	10.8	100	11.1	100	10.9
78	Chromium (Hex)							367.3		387.7		364.6		373.1		373
79	SVM						4.5	7.81	7.7	4.76	3.7	9.73	4.7	7.93	5	7.6
80	LVM						7.4	482.18	7.3	506.50	7.8	462.86	7.8	477.30	8	482

	B	C	D	E	F	G	H
1	**Process Information**						
2							
3	**3018C1 Trial burn**			R1	R2	R3	
4							
5	Combustion Chamber Temp (min)	^{o}C		1072	1076	1074	
6	Quench Tank pH	pH		7.6	7.4	7.3	
7	Quench Blowdown Rate	gpm		29.8	29.8	30.8	
8	Venturi Press. Drop	in W.C		81.90	81.8	81.6	
9	Incinerator Press.	psig		0	0	0.06	
10							
11	**3018C2 Trial burn**			R1	R2	R2B	R3
12							
13	Combustion Chamber Temp (min)	^{o}C		1144.0	1144	1146	1147
14	Quench Tank pH	pH		7.60	7.6	7.6	7.6
15	Quench Blowdown Rate	gpm		30.1	29.9	29.8	32.3
16	Venturi Press. Drop	in W.C		81.5	81.5	82	82
17	Incinerator Press.	psig		0.1	0.2	0.3	0.2

PCDD/PCDF

N

Facility Name and ID: Squibb Manufacturing, Inc.

Condition ID: 3018C1

Condition/Test Date: Trial burn, min oper temp cond

	I-TEF Wght Fact		Run 1 Total Full ND	Run 1 TEQ Full ND	Run 1 Total 1/2 ND	Run 1 TEQ 1/2 ND		Run 2 Total Full ND	Run 2 TEQ Full ND	Run 2 Total 1/2 ND	Run 2 TEQ 1/2 ND		Run 3 Total Full ND	Run 3 TEQ Full ND	Run 3 Total 1/2 ND	Run 3 TEQ 1/2 ND
Detected in sample volume (pg)																
2,3,7,8-TCDD	1	nd	4	4	2	2	nd	4	4	2	2	nd	4	4	2	2
Total TCDD	0		5.7	0.00	5.70	0.00	nd	4.2	0.00	2.10	0.00	nd	3.9	0.00	1.95	0.00
1,2,3,7,8-PCDD	0.5	nd	3.1	1.55	1.55	0.78	nd	3.2	1.60	1.60	0.80	nd	2.3	1.15	1.15	0.58
Total PCDD	0		4.6	0.00	4.60	0.00	nd	3.2	0.00	1.60	0.00	nd	2.5	0.00	1.25	0.00
1,2,3,4,7,8-HxCDD	0.1	nd	3.7	0.37	1.85	0.19	nd	6.6	0.66	3.30	0.33	nd	3.6	0.36	1.80	0.18
1,2,3,6,7,8-HxCDD	0.1	nd	3.0	0.30	1.50	0.15	nd	5.4	0.54	2.70	0.27	nd	3.0	0.30	1.50	0.15
1,2,3,7,8,9-HxCDD	0.1	nd	3.0	0.30	1.50	0.15	nd	5.3	0.53	2.65	0.27	nd	2.9	0.29	1.45	0.15
Total HxCDD	0		13.0	0.00	13.00	0.00	nd	6.6	0.00	3.30	0.00		6.2	0.00	6.20	0.00
1,2,3,4,6,7,8-HpCDD	0.01		8.8	0.09	8.80	0.09		18.0	0.18	18.00	0.18		5.1	0.05	5.10	0.05
Total HpCDD	0		13.0	0.00	13.00	0.00		28.0	0.00	28.00	0.00		11.0	0.00	11.00	0.00
OCDD	0.001		22.0	0.02	22.00	0.02		35.0	0.04	35.00	0.04		21.0	0.02	21.00	0.02
2,3,7,8-TCDF	0.1	nd	2.4	0.24	1.20	0.12		2.5	0.25	2.50	0.25	nd	1.7	0.17	0.85	0.09
Total TCDF	0		98.0	0.00	98.00	0.00		90.0	0.00	90.00	0.00		110.0	0.00	110.00	0.00
1,2,3,7,8-PCDF	0.05	nd	4.6	0.23	2.30	0.12		4.2	0.21	4.20	0.21	nd	3.6	0.18	1.80	0.09
2,3,4,7,8-PCDF	0.5	nd	4.3	2.15	2.15	1.08		6.3	3.15	6.30	3.15	nd	3.4	1.70	1.70	0.85
Total PCDF	0		18.0	0.00	18.00	0.00		47.0	0.00	47.00	0.00		20.0	0.00	20.00	0.00
1,2,3,4,7,8-HxCDF	0.1		7.4	0.74	7.40	0.74		8.2	0.82	8.20	0.82		4.0	0.40	4.00	0.40
1,2,3,6,7,8-HxCDF	0.1		5.1	0.51	5.10	0.51		6.2	0.62	6.20	0.62	nd	2.3	0.23	1.15	0.12
2,3,4,6,7,8-HxCDF	0.1		7.1	0.71	7.10	0.71		6.2	0.62	6.20	0.62	nd	3.0	0.30	1.50	0.15
1,2,3,7,8,9-HxCDF	0.1	nd	2.3	0.23	1.15	0.12	nd	5.2	0.52	2.60	0.26	nd	1.8	0.18	0.90	0.09
Total HxCDF	0		44.0	0.00	44.00	0.00		37.0	0.00	37.00	0.00		14.0	0.00	14.00	0.00
1,2,3,4,6,7,8-HpCDF	0.01		23.0	0.23	23.00	0.23		28.0	0.28	28.00	0.28		11.0	0.11	11.00	0.11
1,2,3,4,7,8,9-HpCDF	0.01	nd	2.1	0.02	1.05	0.01	nd	3.9	0.04	1.95	0.02	nd	1.5	0.02	0.75	0.01
Total HpCDF	0		23.0	0.00	23.00	0.00		28.0	0.00	28.00	0.00		11.0	0.00	11.00	0.00
OCDF	0.001		17.0	0.02	17.00	0.02		49.0	0.05	49.00	0.05		21.0	0.02	21.00	0.02
Gas sample volume (dscf)				126.23	126.23	126.23			128.34	128.34	128.34			129.82	129.82	129.82
O2 (%)				6.80	6.80	6.80			6.80	6.80	6.80			7.00	7.00	7.00
PCDD/PCDF (ng in sample)				0.0115	0.2583	0.0069			0.0143	0.3210	0.0103			0.0094	0.2174	0.0050
PCDD/PCDF (ng/dscm @ 7% O2)		79.9		0.0032	0.0713	0.0019	56.6		0.0039	0.0871	0.0028	93.6		0.0026	0.0592	0.0014
TEQ Cond Avg	0.0020															
Total Cond Avg	0.073															

PCDD/PCDF

N

Facility Name and ID: Squibb Manufacturing, Inc.

Condition ID: 3018C2

Condition/Test Date: Trial burn, elevated oper temp cond

	I-TEF Wght Fact		Run 1 Total Full ND	Run 1 TEQ Full ND	Run 1 Total 1/2 ND	Run 1 TEQ 1/2 ND		Run 2 Total Full ND	Run 2 TEQ Full ND	Run 2 Total 1/2 ND	Run 2 TEQ 1/2 ND		Run 3 Total Full ND	Run 3 TEQ Full ND	Run 3 Total 1/2 ND	Run 3 TEQ 1/2 ND
Detected in sample volume (pg)																
2,3,7,8-TCDD	1	nd	4	4	2	2	nd	3	3	2	2	nd	4	4	2	2
Total TCDD	0	nd	4.4	0.00	2.20	0.00		4.0	0.00	4.00	0.00	nd	3.7	0.00	1.85	0.00
1,2,3,7,8-PCDD	0.5	nd	3.8	1.90	1.90	0.95	nd	3.4	1.70	1.70	0.85	nd	2.5	1.25	1.25	0.63
Total PCDD	0	nd	3.8	0.00	1.90	0.00	nd	6.9	0.00	3.45	0.00	nd	2.5	0.00	1.25	0.00
1,2,3,4,7,8-HxCDD	0.1	nd	4.9	0.49	2.45	0.25	nd	5.7	0.57	2.85	0.29	nd	5.5	0.55	2.75	0.28
1,2,3,6,7,8-HxCDD	0.1	nd	4.0	0.40	2.00	0.20	nd	4.6	0.46	2.30	0.23	nd	4.5	0.45	2.25	0.23
1,2,3,7,8,9-HxCDD	0.1	nd	4.0	0.40	2.00	0.20	nd	4.6	0.46	2.30	0.23	nd	4.4	0.44	2.20	0.22
Total HxCDD	0		8.3	0.00	8.30	0.00		11.0	0.00	11.00	0.00	nd	5.5	0.00	2.75	0.00
1,2,3,4,6,7,8-HpCDD	0.01		3.2	0.03	3.20	0.03		3.8	0.04	3.80	0.04		3.8	0.04	3.80	0.04
Total HpCDD	0		9.2	0.00	9.20	0.00		9.1	0.00	9.10	0.00		7.3	0.00	7.30	0.00
OCDD	0.001		20.0	0.02	20.00	0.02		23.0	0.02	23.00	0.02		16.0	0.02	16.00	0.02
2,3,7,8-TCDF	0.1	nd	2.2	0.22	1.10	0.11	nd	4.1	0.41	2.05	0.21	nd	3.6	0.36	1.80	0.18
Total TCDF	0		50.0	0.00	50.00	0.00		100.0	0.00	100.00	0.00		61.0	0.00	61.00	0.00
1,2,3,7,8-PCDF	0.05	nd	4.6	0.23	2.30	0.12	nd	4.9	0.25	2.45	0.12	nd	3.8	0.19	1.90	0.10
2,3,4,7,8-PCDF	0.5	nd	4.3	2.15	2.15	1.08		5.3	2.65	5.30	2.65		6.0	3.00	6.00	3.00
Total PCDF	0	nd	4.6	0.00	2.30	0.00		22.0	0.00	22.00	0.00		37.0	0.00	37.00	0.00
1,2,3,4,7,8-HxCDF	0.1		6.6	0.66	6.60	0.66		8.1	0.81	8.10	0.81		9.2	0.92	9.20	0.92
1,2,3,6,7,8-HxCDF	0.1		4.1	0.41	4.10	0.41		4.9	0.49	4.90	0.49		6.3	0.63	6.30	0.63
2,3,4,6,7,8-HxCDF	0.1		5.9	0.59	5.90	0.59		7.2	0.72	7.20	0.72		13.0	1.30	13.00	1.30
1,2,3,7,8,9-HxCDF	0.1	nd	2.4	0.24	1.20	0.12	nd	3.3	0.33	1.65	0.17	nd	2.9	0.29	1.45	0.15
Total HxCDF	0		30.0	0.00	30.00	0.00		40.0	0.00	40.00	0.00		56.0	0.00	56.00	0.00
1,2,3,4,6,7,8-HpCDF	0.01		21.0	0.21	21.00	0.21		29.0	0.29	29.00	0.29		27.0	0.27	27.00	0.27
1,2,3,4,7,8,9-HpCDF	0.01	nd	1.4	0.01	0.70	0.01	nd	3.1	0.03	1.55	0.02	nd	1.9	0.02	0.95	0.01
Total HpCDF	0		21.0	0.00	21.00	0.00		29.0	0.00	29.00	0.00		27.0	0.00	27.00	0.00
OCDF	0.001		18.0	0.02	18.00	0.02		31.0	0.03	31.00	0.03		17.0	0.02	17.00	0.02
Gas sample volume (dscf)				125.41	125.41	125.41			123.59	123.59	123.59			125.13	125.13	125.13
O2 (%)				6.00	6.00	6.00			6.00	6.00	6.00			6.00	6.00	6.00
PCDD/PCDF (ng in sample)				0.0124	0.1629	0.0072			0.0126	0.2726	0.0088			0.0134	0.2272	0.0098
PCDD/PCDF (ng/dscm @ 7% O2)	84.3			0.0033	0.0428	0.0019	59.8		0.0034	0.0727	0.0023	53.9		0.0035	0.0599	0.0026

TEQ Cond Avg 0.0023

Total Cond Avg 0.0585