	B	C
1	**Source Description**	
2		
3	Phase I ID No.	708
4	EPA ID No.	NCD047373766
5	Facility Name	DSM Pharmaceuticals, Inc
6	Facility Location	
7	City	Greenville
8	State	NC
9	Unit ID Name/No.	Mcgill No.2 Incinerator
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Liquid injection
14	Combustor Characteristics	McGill Americans, Inc., custom designed, horizontal, forced draft incinerator
15	Capacity (MMBtu/hr)	
16	Soot Blowing	NA
17	APCS Detailed Acronym	VS/PT/WESP
18	APCS General Class	HEWS,LEWS,WESP
19	APCS Characteristics	Venturi scrubber, packed bed, wet electrostatic precipitator. Calvert Collision Scrubber with a maximum design pressure drop of 90 inches WC, vertical Packed Column Scrubber, followed by a Beltran Model 4x4 wet tubular electrostatic precipitator.
20	Hazardous Wastes	Liq
21	Haz Waste Description	Aqueous flammable waste (AFW) and special flammable waste (SFW) generated during the manufacturing of pharmaceuticals and other health products.
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	1.7
26	Height (ft)	50.0
27	Gas Velocity (ft/sec)	40.0
28	Gas Temperature (°F)	164.0
29		
30	Permitting Status	Tier I for all metals
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**708C1**	
4		
5	Report Name/Date	Stationary Source Sampling Report, Reference No. 10786, Burroughs Wellcome Company, Greenville, NC, NcGill No 2 Incinerator, November 18-20, 1992
6	Report Prepare	Entropy
7	Testing Firm	Entropy
8	Cond Descr	Triak burn, minimum temperature, maximum feed rate
9	Testing Dates	November 18, 1992
10	Cond Dates	Nov-92
11		
12	**708C2**	
13		
14	Report Name/Date	Stationary Source Sampling Report, Reference No. 10786, Burroughs Wellcome Company, Greenville, NC, NcGill No 2 Incinerator, November 18-20, 1992
15	Report Prepare	Entropy
16	Testing Firm	Entropy
17	Cond Descr	Trial burn, minimum temperature, maximum feed rate
18	Testing Dates	November 19, 1992
19	Cond Dates	Nov-92
20		
21	**708C3**	
22		
23	Report Name/Date	Stationary Source Sampling Report, Reference No. 10786, Burroughs Wellcome Company, Greenville, NC, NcGill No 2 Incinerator, November 18-20, 1992
24	Report Prepare	Entropy
25	Testing Firm	Entropy
26	Cond Descr	Trial burn, minimum temperature, maximum feed rate.
27	Testing Dates	November 20, 1992
28	Cond Dates	Nov-92
29		
30	**708C10**	Appears that system did not have VS/PBS/WESP during this testing
31		As indicated by very high stack gas temp, and no chlorine control
32	Report Name/Date	RCRA Trial Burn Report, May 1987
33	Report Prepare	Entropy
34	Testing Firm	Entropy
35	Testing Dates	May 13, 1987
36	Cond Dates	May-87
37	Cond Descr	Trial burn, maximum flow capacity
38	Content	PM, CO, Chlorine, DRE, HC
39		
40	**708C11**	Appears that system did not have VS/PBS/WESP during this testing
41		As indicated by very high stack gas temp, and no chlorine control
42	Report Name/Date	RCRA Trial Burn Report, May 1987
43	Report Prepare	Entropy
44	Testing Firm	Entropy
45	Testing Dates	May 14, 1987
46	Cond Dates	May-87
47	Cond Descr	Trial burn, maximum flow capacity, high temperature
48	Content	PM, CO, Chlorine, DRE, HC

	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Stack Gas Emissions 1**												
2													
3													
4													
5													
6	**708C10**					R1		R2		R3		Cond Avg	
7													
8	PM	E1	gr/dscf	y		0.0352		0.0473		0.0513		0.0446	
9	CO (RA)		ppmv	n		0.1		0.0		0.0		0.0	
10	HCl		lb/hr	n		7.9		8.3		8.0		8.0	
11													
12	Sampling Train	PM/HCl	E1										
13	Stack Gas Flowrate		dscfm			4500.0		4751.0		4762.0			
14	O2		%			7.4		7.5		7.6			
15	Moisture		%			7.7		7.9		8.9			
16	Temperature		°F			1757.0		1793.0		1785.0			
17													
18	Toluene	DRE	%			99.999		99.999		99.999			
19	Chloroform	DRE	%			99.999		99.999		99.999			
20													
21	CO (RA)	E1	ppmv	y		0.093		0.000		0.000		0.031	
22	HCl	E1	ppmv	y		321.5		321.5		311.8		318.3	
23													
24	**708C11**					R1		R2		R3		Cond Avg	
25													
26	PM	E1	gr/dscf	y		0.0735		0.0527		0.0611		0.0624	
27	CO (RA)		ppmv	n		0.0		0.0		0.0		0.0	
28	HCl		lb/hr	n		7.7		8.0		7.4		7.7	
29													
30	Sampling Train	PM/HCl	E1										
31	Stack Gas Flowrate		dscfm			4362.0		4410.0		4176.0			
32	O2		%			7.1		7.3		7.4			
33	Moisture		%			9.0		8.6		9.4			
34	Temperature		°F			1791.0		1788.0		1779.0			
35													
36	Toluene	DRE	%			99.999		99.999		99.999			
37	Chloroform	DRE	%			99.999		99.999		99.999			
38													
39													
40	CO (RA)	E1	ppmv	y		0.000		0.000		0.000		0.000	
41	HCl	E1	ppmv	y		317.5		328.9		324.4		323.6	

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 2**											
2												
3												
4												
5												
6	**708C1**					R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0258		0.0225		0.0257		0.0247
9	CO (RA)	E1	ppmv	y	nd	1.5	nd	1.5	nd	1.5		1.5
10	HCl	E1	ppmv	y		3.9		1.2		1.2		2.1
11												
12	Sampling Train	PM/HCl	E1									
13	Stack Gas Flowrate		dscfm			2546.0		2551.0		2664.0		
14	O2		%			16.9		17.4		17.0		
15	Moisture		%			39.0		38.8		38.7		
16	Temperature		°F			170.0		168.0		168.0		
17												
18	Sampling Train	SVOC	E2									
19	Stack Gas Flowrate		dscfm			2741.0		2595.0		2719.0		
20	O2		%			16.9		17.4		17.0		
21	Moisture		%			39.1		39.0		38.5		
22	Temperature		°F			169.0		169.0		168.0		
23												
24	1,2-dichlorobenzene	DRE	%			99.99961		99.99991		99.99996		
25	Chloroform	DRE	%			99.9974		99.9975		99.9974		
26												
27	**708C2**					R1		R2		R3		Cond Avg
28												
29	PM	E1	gr/dscf	y		0.0823		0.0535		0.0332		0.0563
30	CO (RA)	E1	ppmv	y		5.4		3.9	nd	1.6		3.6
31	HCl	E1	ppmv	y		2.6		1.3		0.3		1.4
32												
33	Sampling Train	Halogens	E1									
34	Stack Gas Flowrate		dscfm			2784.0		2829.0		2720.0		
35	O2		%			14.4		14.4		11.9		
36	Moisture		%			37.7		37.0		37.5		
37	Temperature		°F			168.0		167.0		167.0		
38												
39	Sampling Train	SVOC	E2									
40	Stack Gas Flowrate		dscfm			2865.0		2916.0		2760.0		
41	O2		%			14.4		14.4		11.9		
42	Moisture		%			37.8		36.7		37.2		
43	Temperature		°F			168.0		166.0		167.0		
44												
45	1,2-dichlorobenzene	DRE	%			99.99996		99.99995		99.99994		
46	Chloroform	DRE	%			99.9972		99.9971		99.9973		
47												
48	**708C3**					R1		R2		R3		Cond Avg
49												
50	PM	E1	gr/dscf	y		0.0177		0.0127		0.0121		0.0142
51	CO (RA)	E1	ppmv	y		4.0		21.7		20.0		15.2
52	HCl	E1	ppmv	y		0.2		0.3		1.9		0.8
53												
54	Sampling Train	PM/HCl	E1									
55	Stack Gas Flowrate		dscfm			2923.0		2969.0		2957.0		
56	O2		%			12.2		12.5		12.2		
57	Moisture		%			35.8		34.7		34.3		
58	Temperature		°F			165.0		164.0		164.0		
59												
60	Sampling Train	SVOC	E2									
61	Stack Gas Flowrate		dscfm			3042.0		2980.0		2971.0		
62	O2		%			12.2		12.5		12.2		
63	Moisture		%			34.9		35.0		34.5		
64	Temperature		°F			164.0		164.0		163.0		
65												
66	1,2-dichlorobenzene	DRE	%			99.99995		99.99994		99.99995		
67	Chloroform	DRE	%			99.9971		99.9971		99.9972		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**Feedstream 2**																
2																	
3																	
4	**708C10**				R1		R2		R3		R1		R2		R3		Cond Avg
5																	
6	Feedstream Number				F1		F1		F1		F3		F3		F3		F3
7	Feed Class				Liq HW		Liq HW		Liq HW		Total		Total		Total		Total
8	Feed Class 2										Total		Total		Total		Total
9	Feedstream Description										Total		Total		Total		Total
10	Feed Rate		lb/hr		1005		1099		1108								
11	Thermal Feedrate		MMBtu/hr														
12	Toluene		lb/hr		262.3		284.6		287								
13	Chloroform		lb/hr		6.28		6.75		6.59								
14	Chlorine		lb/hr		5.6		6.0		5.9								
15																	
16	Stack Gas Flowrate		dscfm		4500.0		4751.0		4762.0								
17	Oxygen		%		7.4		7.5		7.6								
18																	
19	Estimated Firing Rate		MMBtu/hr		19.4		20.4		20.3								
20																	
21	Chlorine		ug/dscm		342,323		351,085		344,524		3.42E+05		3.51E+05		3.45E+05		3.5.E+05
22																	
23	**708C11**				R1		R2		R3		R1		R2		R3		Cond Avg
24																	
25	Feedstream Number				F1		F1		F1		F3		F3		F3		F3
26	Feed Class				Liq HW		Liq HW		Liq HW		Total		Total		Total		Total
27	Feed Class 2										Total		Total		Total		Total
28	Feedstream Description										Total		Total		Total		Total
29	Feed Rate		lb/hr		1024		991		945								
30	Thermal Feedrate		MMBtu/hr		18.78		18.72		17.59								
31	Toluene		lb/hr		263.2		265.6		238.1								
32	Chloroform		lb/hr		6.18		6.14		5.58								
33	Chlorine		lb/hr		5.5		5.5		5.0								
34																	
35	Stack Gas Flowrate		dscfm		4362.0		4410.0		4176.0								
36	Oxygen		%		7.1		7.3		7.4								
37																	
38	Estimated Firing Rate		MMBtu/hr														
39																	
40	Chlorine		ug/dscm		336,872		319,358		291,721		3.37E+05		3.19E+05		2.92E+05		3.2.E+05

	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	**Feedstream 2**																											
2																												
3																												
4	**708C1**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3	
5																												
6	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3		F3	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW								Total		Total		Total	
8	Feed Class 2																HW		HW		HW		Total		Total		Total	
9	Feedstream Description				Org liq A		Org liq A		Org liq A		Org liq B		Org liq B		Org liq B								Total		Total		Total	
10	Feed Rate		lb/hr		595		596		603		204		205		206								7.99E+02		8.01E+02		8.09E+02	
11	Heating value		Btu/lb																				8930		9010		9620	
12	Ash		wt %																				4.85		4.47		3.68	
13	Chlorine		lb/hr	nd	1.5	nd	1.5	nd	1.5		375		376		375													
14	Antimony		ppmw																			nd	0.1	nd	0.1	nd	0.1	
15	Arsenic		ppmw																			nd	0.1	nd	0.1	nd	0.1	
16	Barium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
17	Beryllium		ppmw																			nd	0.05	nd	0.05	nd	0.05	
18	Cadmium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
19	Chromium		ppmw																				0.53		0.534		0.452	
20	Lead		ppmw																			nd	0.1	nd	0.1	nd	0.1	
21	Mercury		ppmw																			nd	0.1	nd	0.102	nd	0.107	
22	Silver		ppmw																			nd	0.1	nd	0.1	nd	0.1	
23	Thallium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
24																												
25	Stack Gas Flowrate		dscfm		2546		2551		2664		2546		2551		2664								2546		2551		2664	
26	Oxygen		%		16.9		17.4		17		16.9		17.4		17								16.9		17.4		17	
27																												
28	Estimated Firing Rate		MMBtu/hr																									
29																												
30	Ash		mg/dscm																			100	287	100	326	100	284.2	100
31	Chlorine		ug/dscm	100	519962	100	591019	100	512867		134473037		153257271		131729565		1.35E+08		1.54E+08		1.32E+08		134733019		153552780		1.32E+08	
32	Antimony		ug/dscm																			100	29	100	33	100	28.4	100
33	Arsenic		ug/dscm																			100	29	100	33	100	28.4	100
34	Barium		ug/dscm																			100	29	100	33	100	28.4	100
35	Beryllium		ug/dscm																			100	14	100	16	100	14.2	100
36	Cadmium		ug/dscm																			100	29	100	33	100	28.4	100
37	Chromium		ug/dscm																				152		174		128.5	
38	Lead		ug/dscm																			100	29	100	33	100	28.4	100
39	Mercury		ug/dscm																			100	29	100	33	100	30.4	100
40	Silver		ug/dscm																			100	29	100	33	100	28.4	100
41	Thallium		ug/dscm																			100	29	100	33	100	28.4	100
42	SVM		ug/dscm																			100	57	100	65	100	56.8	100
43	LVM		ug/dscm																			22	195	22	223	25	171.1	23
44																												
45	**708C2**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3	
46																												
47	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3		F3	
48	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW								Total		Total		Total	
49	Feed Class 2																HW		HW		HW		Total		Total		Total	
50	Feedstream Description				Org liq A		Org liq A		Org liq A		Org liq B		Org liq B		Org liq B								Total		Total		Total	
51	Feed Rate		lb/hr		608		603		608		203		204		205								8.11E+02		8.07E+02		8.13E+02	
52	Heating value		Btu/lb																				9510		9110		8990	
53	Ash		wt %																				3.48		4.18		4.45	
54	Chlorine		lb/hr	nd	1.47	nd	1.46	nd	1.48		377		376		375													
55	Mercury		ppmw																			nd	0.107	nd	0.104	nd	0.102	
56	Antimony		ppmw																			nd	0.1	nd	0.1	nd	0.1	
57	Arsenic		ppmw																			nd	0.1	nd	0.1	nd	0.1	
58	Barium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
59	Beryllium		ppmw																			nd	0.05	nd	0.05	nd	0.05	
60	Cadmium		ppmw																			nd	0.1	nd	0.1	nd	0.1	

	B	AD
1	**Feedstream 2**	
2		
3		
4	**708C1**	Cond Avg
5		
6	Feedstream Number	F3
7	Feed Class	Total
8	Feed Class 2	Total
9	Feedstream Descriptio	Total
10	Feed Rate	
11	Heating value	
12	Ash	
13	Chlorine	
14	Antimony	
15	Arsenic	
16	Barium	
17	Beryllium	
18	Cadmium	
19	Chromium	
20	Lead	
21	Mercury	
22	Silver	
23	Thallium	
24		
25	Stack Gas Flowrate	2587
26	Oxygen	17.1
27		
28	Estimated Firing Rate	3.20
29		
30	Ash	3.0.E+02
31	Chlorine	1.4.E+08
32	Antimony	3.0.E+01
33	Arsenic	3.0.E+01
34	Barium	3.0.E+01
35	Beryllium	1.5.E+01
36	Cadmium	3.0.E+01
37	Chromium	1.5.E+02
38	Lead	3.0.E+01
39	Mercury	3.1.E+01
40	Silver	3.0.E+01
41	Thallium	3.0.E+01
42	SVM	59.8
43	LVM	196.4
44		
45	**708C2**	Cond Avg
46		
47	Feedstream Number	F3
48	Feed Class	Total
49	Feed Class 2	Total
50	Feedstream Descriptio	Total
51	Feed Rate	
52	Heating value	
53	Ash	
54	Chlorine	
55	Mercury	
56	Antimony	
57	Arsenic	
58	Barium	
59	Beryllium	
60	Cadmium	

	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	Chromium		ppmw																				0.434		0.513		0.543	
62	Lead		ppmw																			nd	0.1	nd	0.1	nd	0.1	
63	Silver		ppmw																			nd	0.1	nd	0.1	nd	0.1	
64	Thallium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
65																												
66																												
67	Stack gas flowrate		dscfm		2784		2829		2720		2784		2829		2720								2784		2829		2720	
68	Oxygen		%		14.4		14.4		11.9		14.4		14.4		11.9								14.4		14.4		11.9	
69																												
70	Estimated Firing Rate		MMBtu/hr																									
71																												
72	Feedrate MTECs																											
73	Ash		mg/dscm																				5750		6763		5471	
74	Chlorine		ug/dscm		299468		292700		223819		76802328		75380179		56710983		77101796		75672879		56934802		76952062		75526529		56822893	
75	Mercury		ug/dscm																			100	18	100	17	100	13	100
76	Antimony		ug/dscm																			100	17	100	16	100	12	100
77	Arsenic		ug/dscm																			100	17	100	16	100	12	100
78	Barium		ug/dscm																			100	17	100	16	100	12	100
79	Beryllium		ug/dscm																			100	8	100	8	100	6	100
80	Cadmium		ug/dscm																			100	17	100	16	100	12	100
81	Chromium		ug/dscm																				72		83		67	
82	Lead		ug/dscm																			100	17	100	16	100	12	100
83	Silver		ug/dscm																			100	17	100	16	100	12	100
84	Thallium		ug/dscm																			100	17	100	16	100	12	100
85	SVM		ug/dscm																			100	33	100	16	100	12	100
86	LVM		ug/dscm																			26	96	26	95	24	76	25
87																												
88	**708C3**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		R3	
89																												
90	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3		F3	
91	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Liq HW								Total		Total		Total	
92	Feed Class 2																HW		HW		HW		Total		Total		Total	
93	Feedstream Description				Org liq A		Org liq A		Org liq A		Org liq B		Org liq B		Org liq B								Total		Total		Total	
94	Feed Rate		lb/hr		650		636		637		203		204		206								8.53E+02		8.40E+02		8.43E+02	
95	Heating value		Btu/lb																				8800		8880		8840	
96	Ash		wt %																				4.53		4.51		4.61	
97	Chlorine		lb/hr	nd	1.58	nd	1.54	nd	1.55		377		375		378													
98	Mercury		ppmw																			nd	0.107	nd	0.102	nd	0.101	
99	Antimony		ppmw																				0.2		0.226		0.213	
100	Arsenic		ppmw																			nd	0.1	nd	0.1	nd	0.1	
101	Barium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
102	Beryllium		ppmw																			nd	0.05	nd	0.05	nd	0.05	
103	Cadmium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
104	Chromium		ppmw																				0.335		0.332		0.319	
105	Lead		ppmw																			nd	0.1	nd	0.1	nd	0.1	
106	Silver		ppmw																			nd	0.1	nd	0.1	nd	0.1	
107	Thallium		ppmw																			nd	0.1	nd	0.1	nd	0.1	
108																												
109	Stack gas flowrate		dscfm		2923		2969		2957		2923		2969		2957								2923		2969		2957	
110	Oxygen		%		12.2		12.5		12.2		12.2		12.5		12.2								12.2		12.5		12.2	
111																												
112	Estimated Firing Rate		MMBtu/hr																									
113																												
114	Feedrate MTECs																											
115	Ash		mg/dscm																				5623		5619		5590	
116	Chlorine		ug/dscm	nd	229928	nd	228422	nd	222969		54862560		55622224		54375593		55092488		55850646		54598562		54977524		55736435		54487077	
117	Mercury		ug/dscm																			100	13	100	13	100	12	100
118	Antimony		ug/dscm																				25		28		26	
119	Arsenic		ug/dscm																			100	12	100	12	100	12	100
120	Barium		ug/dscm																			100	12	100	12	100	12	100

	B	AD
61	Chromium	
62	Lead	
63	Silver	
64	Thallium	
65		
66		
67	Stack gas flowrate	2777.7
68	Oxygen	13.6
69		
70	Estimated Firing Rate	6.55
71		
72	Feedrate MTECs	
73	Ash	6.0.E+03
74	Chlorine	7.0.E+07
75	Mercury	1.6.E+01
76	Antimony	1.5.E+01
77	Arsenic	1.5.E+01
78	Barium	1.5.E+01
79	Beryllium	7.5.E+00
80	Cadmium	1.5.E+01
81	Chromium	7.4.E+01
82	Lead	1.5.E+01
83	Silver	1.5.E+01
84	Thallium	1.5.E+01
85	SVM	21
86	LVM	89
87		
88	**708C3**	Cond Avg
89		
90	Feedstream Number	F3
91	Feed Class	Total
92	Feed Class 2	Total
93	Feedstream Descriptio	Total
94	Feed Rate	
95	Heating value	8800
96	Ash	4.53
97	Chlorine	
98	Mercury	0.103
99	Antimony	
100	Arsenic	
101	Barium	
102	Beryllium	
103	Cadmium	
104	Chromium	
105	Lead	
106	Silver	
107	Thallium	
108		
109	Stack gas flowrate	2949.7
110	Oxygen	12.3
111		
112	Estimated Firing Rate	8.15
113		
114	Feedrate MTECs	
115	Ash	5.6.E+03
116	Chlorine	5.5.E+07
117	Mercury	1.3.E+01
118	Antimony	2.6.E+01
119	Arsenic	1.2.E+01
120	Barium	1.2.E+01

	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
121	Beryllium		ug/dscm																			100	6	100	6	100	6	100
122	Cadmium		ug/dscm																			100	12	100	12	100	12	100
123	Chromium		ug/dscm																				42		41		39	
124	Lead		ug/dscm																			100	12	100	12	100	12	100
125	Silver		ug/dscm																			100	12	100	12	100	12	100
126	Thallium		ug/dscm																			100	12	100	12	100	12	100
127	SVM		ug/dscm																			100	25	100	25	100	24	100
128	LVM		ug/dscm																			31	60	31	60	32	57	31

	B	AD
121	Beryllium	6.2.E+00
122	Cadmium	1.2.E+01
123	Chromium	4.1.E+01
124	Lead	1.2.E+01
125	Silver	1.2.E+01
126	Thallium	1.2.E+01
127	SVM	2.5.E+01
128	LVM	5.9.E+01