	B	C
1	**Source Description**	
2		
3	Phase II ID No.	848
4	EPA ID No.	TXD008092793
5	Facility Name	Dow Chemical Company
6	Facility Location	
7	City	Freeport
8	State	TX
9	Unit ID Name/No.	F-11
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	HCl Production Furnace
13	Combustor Type	
14	Combustor Characteristics	Cleaver-Brooks firetube boiler, Cleaver-Brooks horizontal direct fired comb chamber, capacity 23.4 MMBtu/hr, operated @ 700-1200C
15	Capacity (MMBtu/hr)	24
16	Soot Blowing	None
17	APCS Detailed Acronym	WHB/HClABS/CWS
18	APCS General Class	WHB, LEWS
19	APCS Characteristics	T-20 Chlorine Scrubber, water/caustic liquor
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid waste (Epi Heavies/Lights and BO Heavies)
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	2.5
26	Height (ft)	60
27	Gas Velocity (ft/sec)	21.0
28	Gas Temperature (°F)	
29		
30	Permitting Status	Tier I for metals except Tier III for Cr+6
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Cond Description**	
2		
3	**848C1**	
4		
5	Report Name/Date	F-11 Trial Burn and Risk Burn Reports, September 25, 1998
6	Report Prepare	Focus Environmental, Inc.
7	Testing Firm	METCO Environmental
8	Testing Dates	June 18, 1998
9	Cond Dates	Jun-98
10	Condition Descr	Trial burn, max waste feed rate and comb temp, min APCS
11	Content	PM, HCl/Cl2, Cr+6, CO
12		
13	**848C2**	
14		
15	Report Name/Date	F-11 Trial Burn and Risk Burn Reports, September 25, 1998
16	Report Prepare	Focus Environmental, Inc.
17	Testing Firm	METCO Environmental
18	Testing Dates	June 30, 1998
19	Cond Dates	Jun-98
20	Condition Descr	Trial burn, DRE, min comb temp and max comb gas velocity
21	Content	CO, DRE (chlorobenzene)
22		
23	**848C3**	
24		
25	Report Name/Date	F-11 Trial Burn and Risk Burn Reports, September 25, 1998
26	Report Prepare	Focus Environmental, Inc.
27	Testing Firm	METCO Environmental
28	Testing Dates	June 16-17, 1998
29	Cond Dates	Jun-98
30	Condition Descr	Risk burn, above normal liq waste feed rate, normal comb temp
31	Content	Metals, PCDD/F

	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	**848C1**	**Capacity burn**				R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0028		0.0029		0.0026		0.0028
9	CO (MHRA)	E1	ppmv	y		15.01		13.91		13.3		14.07
10	CO (RA)	E1	ppmv	y		14.37		12.98		11.97		13.11
11	Chromium (Hex)		g/hr			0.017		0.0081		0.017		0.014
12	HCl		g/hr			7.42		7.33		6.9		7.2
13	Cl2		g/hr			21.5		20.1		16.7		19.4
14												
15	Chromium (Hex)	E2	µg/dscm	y		2.0		1.0		2.0		1.7
16	HCl	E1	ppmv	y		0.6		0.6		0.6		0.6
17	Cl2	E1	ppmv	y		0.9		0.8		0.7		0.8
18	Total Chlorine	E1	ppmv	y		2.36		2.23		1.93		2.18
19												
20	Sampling Train	PM, HCl/Cl2	E1									
21	Stack Gas Flowrate		dscfm			6203		6224		6144		6190
22	O2		%			9.9		9.9		9.8		9.9
23	Moisture		%									
24	Temperature		°F									
25												
26	Sampling Train	Cr+6	E2									
27	Stack Gas Flowrate		dscfm			6187		5978		5996		6054
28	O2		%									
29	Moisture		%									
30	Temperature		°F									
31												
32	**848C2**	**DRE burn**				R1		R2		R3		Cond Avg
33												
34	CO (MHRA)	E1	ppmv	y		32.5		26.55		24.53		27.86
35	CO (RA)	E1	ppmv	y		30.32		24.63		23.64		26.20
36												
37	POHC DRE	Chlorobenzene										
38	POHC Feedrate		lb/hr			20		20		20		
39	Emission Rate	E1	lb/hr			1.30E-04		1.60E-05	nd	2.10E-05		
40	DRE	E1	%			99.99936		99.99992	>	99.99990		
41												
42	Sampling Train	DRE	E1									
43	Stack Gas Flowrate		dscfm			7076		7012		7110		7066.0
44	O2		%									
45	Moisture		%									
46	Temperature		°F									
47												
48	**848C3**	**Risk Burn**				R1		R2		R3		Cond Avg
49												
50	CO (MHRA)	E1	ppmv	y		15.6		16.5		15.5		15.8
51	CO (RA)	E1	ppmv	y		13.5		15.9		13.5		14.3
52	Antimony		µg/dscf	n	nd	0.010	nd	0.007	nd	0.003		
53	Arsenic		µg/dscf	n	nd	0.003	nd	0.006	nd	0.002		
54	Barium		µg/dscf	n		0.046		0.098		0.175		
55	Beryllium		µg/dscf	n	nd	0.0004	nd	0.001	nd	0.0003		
56	Cadmium		µg/dscf	n	nd	0.003	nd	0.004	nd	0.002		
57	Chromium		µg/dscf	n		0.008		0.010		0.023		
58	Cobalt		µg/dscf	n		0.01		0.006		0		
59	Copper		µg/dscf	n		1.18		0.358		0.356		
60	Lead		µg/dscf	n		0		0		0		
61	Manganese		µg/dscf	n		0.04		0		0.001		
62	Mercury		µg/dscf	n	nd	0.003	nd	0.003	nd	0.003		
63	Molybdenum		µg/dscf	n	nd	0.01	nd	0.018	nd	0.007		
64	Nickel		µg/dscf	n		0.43		0.183		0.170		
65	Selenium		µg/dscf	n	nd	0.0044	nd	0.012	nd	0.004		
66	Silver		µg/dscf	n		0		0.007		0.009		
67	Thallium		µg/dscf	n	nd	0.0041	nd	0.01	nd	0.004		
68	Vanadium		µg/dscf	n		0.0087		0.013		0.012		
69												
70	Antimony	E1	µg/dscm	y	nd	0.5	nd	0.3	nd	0.1	100	0.3
71	Arsenic	E1	µg/dscm	y	nd	0.1	nd	0.3	nd	0.1	100	0.2

	B	C	D	E	F	G	H	I	J	K	L	M
72	Barium	E1	µg/dscm	y		2.3		4.8		8.7		5.3
73	Beryllium	E1	µg/dscm	y	nd	0.02	nd	0.04	nd	0.02	100	0.0
74	Cadmium	E1	µg/dscm	y	nd	0.2	nd	0.2	nd	0.1	100	0.2
75	Chromium	E1	µg/dscm	y		0.4		0.5		1.1		0.7
76	Cobalt	E1	µg/dscm	y		0.5		0.3		0.0		0.3
77	Copper	E1	µg/dscm	y		58.4		17.7		17.6		31.2
78	Lead	E1	µg/dscm	y		0		0		0		0.0
79	Manganese	E1	µg/dscm	y		1.9		0.0		0.1		0.7
80	Mercury	E1	µg/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.1
81	Molybdenum	E1	µg/dscm	y	nd	0.3	nd	0.9	nd	0.3	100	0.5
82	Nickel	E1	µg/dscm	y		21.1		9.1		8.4		12.8
83	Selenium	E1	µg/dscm	y	nd	0.2	nd	0.6	nd	0.2	100	0.3
84	Silver	E1	µg/dscm	y	nd	0	nd	0.4		0.4		0.3
85	Thallium	E1	µg/dscm	y	nd	0.2	nd	0.5	nd	0.2	100	0.3
86	Vanadium	E1	µg/dscm	y		0.4		0.6		0.6		0.5
87	SVM	E1	µg/dscm	y	100	0.17	100	0.21	100	0.08	100	0.2
88	LVM	E1	µg/dscm	y	29	0.58	40	0.85	10	1.25	24	0.9
89												
90	Sampling Train	Metals	E1									
91	Stack Gas Flowrate		dscfm			5849		5949		5977		5925.0
92	O2		%									
93	Moisture		%									
94	Temperature		°F									
95												
96	Sampling Train	PCDD/PCDF	E2									
97	Stack Gas Flowrate		dscfm			5821		5969		5953		5914.3
98	O2		%			11		11		11		11.0
99	Moisture		%									
100	Temperature		°F									
101												
102	Particle Size Distribution	in microns										
103	0.5-1		% wt			1.5						
104	1-5		% wt			65.2						
105	5-10		% wt			19.4						
106	10-20		% wt			1.8						
107	20-50		% wt			7.1						
108	50-100		% wt			5						
109	>100		% wt			0						

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	**Feedstreams**																							
2																								
3																								
4	**848C1**		**Capacity burn**		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
5																								
6	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		NG		NG		NG		NG		Spike		Spike	
8	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Spike		Spike	
9	Feedstream Description				Epi Heavies/Lts		Epi Heavies/Lts		Epi Heavies/Lts		Epi Heavies/Lts		Natural Gas		Natural Gas		Natural Gas		Natural Gas		Spike		Spike	
10	Feed Rate		lb/hr		2778		2760		2737		2748.3										37		37	
11	Thermal Feedrate		MMBtu/hr		16.2		16		15.6		15.9		5.5		5.5		5.5		5.5					
12	Viscosity		cps		11.3		11.3		11.3		11.30													
13	Heating Value		Btu/lb		5820		5800		5700		5773.3													
14	Density		lb/gal		2.4		2.4		2.4		2.4													
15	Ash		lb/hr		0.0028		0.011		0.03		0.015										0.83		0.83	
16	Chlorine		lb/hr		1790		1780		1780		1783.3													
17	Antimony		g/hr		0.25		0.31		0.35		0.30													
18	Arsenic		g/hr	nd	0.01	nd	0.01	nd	0.01		0.01													
19	Barium		g/hr	nd	0.004	nd	0.004	nd	0.004		0.004													
20	Beryllium		g/hr	nd	0.004	nd	0.0069	nd	0.004		0.005													
21	Cadmium		g/hr		0.021		0.023	nd	0.02		0.021													
22	Chromium		g/hr		0.0086		0.01		0.0087		0.009										3.9		3.9	
23	Lead		g/hr		0.18		0.24		0.31		0.243													
24	Mercury		g/hr	nd	0.05	nd	0.06	nd	0.05		0.05													
25	Nickel		g/hr	nd	0.1	nd	0.1	nd	0.1		0.1													
26	Selenium		g/hr	nd	0.05	nd	0.05	nd	0.05		0.05													
27	Silver		g/hr	nd	0.007	nd	0.007	nd	0.007		0.007													
28	Thallium		g/hr	nd	0.05	nd	0.066	nd	0.04		0.052													
29	Zinc		g/hr		0.048	nd	0.04		0.07		0.053													
30																								
31	Stack Gas Flowrate		dscfm		6203		6224		6144		6190										6203		6224	
32	Oxygen		%		9.9		9.9		9.8		9.9										9.9		9.9	
33																								
34	Estimated Firing Rate		MMBtu/hr																					
35																								
36	*Feedrate MTEC Calculations*																							
37	Ash		mg/dscm		0.2		0.6		1.6		0.8										45.1		45.0	
38	Chlorine		ug/dscm		97313809		96443651		96827111		96861524													
39	Antimony		ug/dscm		29.9		37.0		41.9		36.3													
40	Arsenic		ug/dscm	100	1.2	100	1.2	100	1.2	100	1.2													
41	Barium		ug/dscm	100	0.5	100	0.5	100	0.5	100	0.5													
42	Beryllium		ug/dscm	100	0.5	100	0.8	100	0.5	100	0.6													
43	Cadmium		ug/dscm		2.5		2.7	100	2.4	31	2.6													
44	Chromium		ug/dscm		1.0		1.2		1.0		1.1										467.0		465.4	
45	Lead		ug/dscm		21.6		28.6		37.1		29.1													
46	Mercury		ug/dscm	100	6.0	100	7.2	100	6.0	100	6.4													
47	Nickel		ug/dscm	100	12.0	100	11.9	100	12.0	100	12.0													
48	Selenium		ug/dscm	100	6.0	100	6.0	100	6.0	100	6.0													
49	Silver		ug/dscm	100	0.8	100	0.8	100	0.8	100	0.8													
50	Thallium		ug/dscm	100	6.0	100	7.9	100	4.8	100	6.2													
51	Zinc		ug/dscm		5.7	100	4.8		8.4	25	6.3													
52																								
53	SVM		ug/dscm	0	24.1	0	31.4	6	39.5	3	31.7													
54	LVM		ug/dscm	62	2.7	63	3.2	62	2.7	62	2.9										467.0		465.4	
55																								
56																								
57																								
58	**848C2**		**DRE burn**		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
59																								
60	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	

	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1																			
2																			
3																			
4	R3		Cond Avg		R1		R2		R3		Cond Avg								
5																			
6	F3		F3		F4		F4		F4		F4								
7	Spike		Spike		Total		Total		Total		Total								
8	Spike		Spike		Total		Total		Total		Total								
9	Spike		Spike		Total		Total		Total		Total								
10	37		37																
11																			
12																			
13																			
14																			
15	0.83		0.83																
16																			
17																			
18																			
19																			
20																			
21																			
22	3.9		3.9																
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31	6144		6190																
32	9.8		9.9																
33																			
34					21.9		21.9		21.8		21.8								
35																			
36																			
37	45.1		45.2	0	45.3	0	45.6	0	46.8	0	46.0								
38				0	97313809.4	0	96443650.9	0	96827111.2	0	96861523.8								
39				0	29.9	0	37.0	0	41.9	0	36.3								
40				100	1.2	100	1.2	100	1.2	100	1.2								
41				100	0.5	100	0.5	100	0.5	100	0.5								
42				100	0.5	100	0.8	100	0.5	100	0.6								
43				0	2.5	0	2.7	100	2.4	31	2.6								
44	467.3		468.0	0	468.0	0	466.6	0	468.3	0	469.1								
45				0	21.6	0	28.6	0	37.1	0	29.1								
46				100	6.0	100	7.2	100	6.0	100	6.4								
47				100	12.0	100	11.9	100	12.0	100	12.0								
48				100	6.0	100	6.0	100	6.0	100	6.0								
49				100	0.8	100	0.8	100	0.8	100	0.8								
50				100	6.0	100	7.9	100	4.8	100	6.2								
51				0	5.7	100	4.8	0	8.4	25	6.3								
52																			
53				0	24.1	0	31.4	6	39.5	3	31.7								
54	467.3		468.0	0	469.7	0	468.6	0	470.0	0	470.9								
55																			
56																			
57																			
58	R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
59																			
60	F3		F3		F4		F4		F4		F4		F5		F5		F5		F5

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
61	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		NG		NG		NG		NG		Process Gas		Process Gas	
62	Feed Class 2				HW		HW		HW		HW										MF		MF	
63	Feedstream Description				Epi Heavies/Lts		Epi Heavies/Lts		Epi Heavies/Lts		Epi Heavies/Lts		Natural Gas		Natural Gas		Natural Gas		Natural Gas		Vapor		Vapor	
64	Feed Rate		lb/hr		1629		1597		1594		1606.0										168.2		168.2	
65	Thermal Feedrate		MMBtu/hr		9.2		9		9		9.1		5.87		5.87		5.87		5.87		1		0.9	
66	Viscosity		cps		2.1		2		2		2.07													
67	Heating Value		Btu/lb		5650		5640		5640		5643.3													
68	Density		lb/gal		11.3		11.3		11.3		11.3													
69	Ash		lb/hr	nd	3	nd	3	nd	3		3													
70	Chlorine		lb/hr		1080		1090		1060		1076.7										40		40	
71	Chlorobenzene		lb/hr																					
72																								
73	Stack Gas Flowrate		dscfm		7076		7012		7110		7066													
74	Oxygen		%		9.9		9.9		9.8		9.9													
75																								
76	Estimated Firing Rate		MMBtu/hr																					
77																								
78	*Feedrate MTEC Calculations*																							
79	Ash		mg/dscm	100	143.0	100	144.3	100	141.0	100	143.2													
80	Chlorine		ug/dscm		51470591		52421303		49826966		51385940										1906318		1923718	
81																								
82																								
83																								
84	**848C3**		**Risk burn**		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
85																								
86	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	
87	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		NG		NG		NG		NG		Total		Total	
88	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Total		Total	
89	Feedstream Description				BO Heavies		BO Heavies		BO Heavies		BO Heavies		Natural Gas		Natural Gas		Natural Gas		Natural Gas		Total		Total	
90	Feed Rate		lb/hr		1543		1546		1535		1541													
91	Viscosity		cps		1.2		1.2		1.2		1.2													
92	Heating Value		Btu/lb		9550		9500		9550		9533													
93	Density		lb/gal		9.9		9.3		9.3		9.7													
94	Ash		lb/hr		0.0231		0.0186		0.023		0.022													
95	Chlorine		lb/hr		684		679		675		679.3													
96	Antimony		g/hr	nd	0.017	nd	0.017	nd	0.017		0.02													
97	Arsenic		g/hr	nd	0.007	nd	0.007	nd	0.007		0.007													
98	Barium		g/hr	nd	0.0024	nd	0.0024	nd	0.0024		0.0024													
99	Beryllium		g/hr	nd	0.002	nd	0.002	nd	0.002		0.0020													
100	Cadmium		g/hr	nd	0.011	nd	0.011	nd	0.011		0.011													
101	Chromium		g/hr		0.0148		0.0106		0.0143		0.013													
102	Lead		g/hr	nd	0.027	nd	0.027	nd	0.027		0.027													
103	Mercury		g/hr	nd	0.028	nd	0.028	nd	0.028		0.028													
104	Nickel		g/hr		1.37		0.067		1.22		0.886													
105	Selenium		g/hr	nd	0.029	nd	0.029	nd	0.029		0.029													
106	Silver		g/hr	nd	0.0039	nd	0.0039	nd	0.0039		0.0039													
107	Thallium		g/hr		0.056		0.0339		0.025		0.040													
108	Zinc		g/hr	nd	0.023	nd	0.023	nd	0.023		0.02													
109																								
110	Stack Gas Flowrate		dscfm		5821		5969		5953		5914.333333													
111	Oxygen		%		11		11		11		11													
112																								
113	Thermal Feedrate		MMBtu/hr		14.7		14.7		14.7		14.7		3.8		3.8		3.8		3.8		18.5		18.5	
114	Estimated Firing Rate		MMBtu/hr																		18.5		18.9	
115																								
116	Feedrate MTEC Calculations																							
117	Ash		mg/dscm		1.5		1.2		1.4		1.4									0	1.49	0	1.17	0
118	Chlorine		ug/dscm		43985011		42580857		42443784		43003217.2									0	43985011	0	42580857	0
119	Antimony		ug/dscm	100	2.4	100	2.3	100	2.4	100	2.4									100	2.41	100	2.35	100
120	Arsenic		ug/dscm	100	1.0	100	1.0	100	1.0	100	1.0									100	0.99	100	0.97	100

	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
61	Process Gas		Process Gas		Spike		Spike		Spike		Spike		Total		Total		Total		Total
62	MF		MF		Spike		Spike		Spike		Spike		Total		Total		Total		Total
63	Vapor		Vapor		Spike		Spike		Spike		Spike		Total		Total		Total		Total
64	168.2		168.2		20		20		20		20								
65	0.6		0.8																
66																			
67																			
68																			
69																			
70	40		40		6.3		6.3		6.3		6.3								
71					20		20		20		20								
72																			
73																			
74																			
75																			
76													24.9		24.7		25.3		24.9
77																			
78																			
79												100	143.0	100	144.3	100	141.0	100	143.2
80	1880263		1909016		300245		302986		296141		300670		53677154.3		54648006.4		52003370.4		53595625.9
81																			
82																			
83																			
84	R3		Cond Avg																
85																			
86	F3		F3																
87	Total		Total																
88	Total		Total																
89	Total		Total																
90																			
91																			
92																			
93																			
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106																			
107																			
108																			
109																			
110																			
111																			
112																			
113	18.5		18.5																
114	18.9		18.8																
115																			
116																			
117	1.45	0	1.37																
118	42443784	0	43003217																
119	2.35	100	2.37																
120	0.97	100	0.98																

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
121	Barium		ug/dscm	100	0.3	100	0.3	100	0.3	100	0.3									100	0.34	100	0.33	100
122	Beryllium		ug/dscm	100	0.3	100	0.3	100	0.3	100	0.3									100	0.28	100	0.28	100
123	Cadmium		ug/dscm	100	1.6	100	1.5	100	1.5	100	1.5									100	1.56	100	1.52	100
124	Chromium		ug/dscm		2.1		1.5		2.0		1.8									0	2.10	0	1.46	0
125	Lead		ug/dscm	100	3.8	100	3.7	100	3.7	100	3.8									100	3.82	100	3.73	100
126	Mercury		ug/dscm	100	4.0	100	3.9	100	3.9	100	3.9									100	3.97	100	3.87	100
127	Nickel		ug/dscm		194.0		9.3		169.0		124.1									0	194.05	0	9.25	0
128	Selenium		ug/dscm	100	4.1	100	4.0	100	4.0	100	4.0									100	4.11	100	4.01	100
129	Silver		ug/dscm	100	0.6	100	0.5	100	0.5	100	0.5									100	0.55	100	0.54	100
130	Thallium		ug/dscm		7.9		4.7		3.5		5.4									0	7.93	0	4.68	0
131	Zinc		ug/dscm	100	3.3	100	3.2	100	3.2	100	3.2									100	3.26	100	3.18	100
132																								
133	SVM		ug/dscm	100	5.4	100	5.2	100	5.3	100	5.3									100	5.38	100	5.25	100
134	LVM		ug/dscm	38	3.4	46	2.7	39	3.2	40	3.1									38	3.37	46	2.71	39
135																								
136																								
137	Tier I Feedrate Limits																							
138	Antimony		g/hr								150													
139	Arsenic		g/hr								0.55													
140	Barium		g/hr								25000													
141	Beryllium		g/hr								1													
142	Cadmium		g/hr								1.3													
143	Chromium		g/hr								3.9													
144	Lead		g/hr								45													
145	Mercury		g/hr								150													
146	Silver		g/hr								1500													
147	Thallium		g/hr								1500													

	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
121	0.33	100	0.33																
122	0.28	100	0.28																
123	1.52	100	1.53																
124	1.98	0	1.85																
125	3.74	100	3.76																
126	3.88	100	3.90																
127	168.97	0	124.09																
128	4.02	100	4.04																
129	0.54	100	0.54																
130	3.46	0	5.36																
131	3.19	100	3.21																
132																			
133	5.26	100	5.30																
134	3.23	40	3.10																
135																			
136																			
137																			
138																			
139																			
140																			
141																			
142																			
143																			
144																			
145																			
146																			
147																			

	A	B	C
1	**Process Information**		
2			
3	**848C1**	Capacity burn	Cond Avg
4			
5	Comb Temp	^{o}F	1950.2
6	Prod Rate	lb/hr	15389
7	T-20 Scrubber		
8	Effluent pH	pH	9.2
9	Effluent Flow	gpm	50.9
10	Scrubber L/G	gal/Macf	8.8
11			
12	**848C2**	DRE burn	Cond Avg
13			
14	Comb Temp	^{o}F	1598.6
15	Prod Rate	lb/hr	11548.7
16	T-20 Scrubber		
17	Effluent pH	pH	10.01
18	Effluent Flow	gpm	71.6
19	Scrubber L/G	gal/Macf	10.1
20			
21	**848C3**	Risk burn	Cond Avg
22			
23	Comb Temp	^{o}F	1920.2
24	Prod Rate	lb/hr	14378
25	T-20 Scrubber		
26	Effluent pH	pH	10.5
27	Effluent Flow	gpm	91.9
28	Scrubber L/G	gal/Macf	10.8

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**PCDD/PCDF**																	
2	N																	
3	Facility Name and ID:		Dow Chemical Company, Freeport, TX															
4	Condition ID:		848C3															
5	Condition/Test Date:		Risk burn, above normal operating of liq waste feed rate, normal comb temp, June 16-17, 1998															
6																		
7			I-TEF			Run 1						Run 2					Run 3	
8			Wght Fact		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ		Total	TEQ	Total	TEQ
9					Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND		Full ND	Full ND	1/2 ND	1/2 ND
10	Detected in sample volume (pg)																	
11		2,3,7,8-TCDD	1		750	750	750	750		450	450	450	450		430	430.0	430	430.0
12		Total TCDD	0		6100	0	6100	0		3400	0	3400	0		3200	0.0	3200	0.0
13		1,2,3,7,8-PCDD	0.5		1400	700	1400	700		1000	500	1000	500		970	485	970	485
14		Total PCDD	0		10000	0	10000	0		7100	0	7100	0		6600	0	6600	0
15		1,2,3,4,7,8-HxCDD	0.1		1600	160	1600	160		1500	150	1500	150		1300	130	1300	130
16		1,2,3,6,7,8-HxCDD	0.1		4200	420	4200	420		3100	310	3100	310		2900	290	2900	290
17		1,2,3,7,8,9-HxCDD	0.1		1600	160	1600	160		1200	120	1200	120		1100	110	1100	110
18		Total HxCDD	0		22000	0	22000	0		17000	0	17000	0		16000	0	16000	0
19		1,2,3,4,6,7,8-HpCDD	0.01		12000	120	12000	120		8500	85	8500	85		8600	86	8600	86
20		Total HpCDD	0		19000	0	19000	0		14000	0	14000	0		14000	0	14000	0
21		OCDD	0.001		16000	16	16000	16		11000	11	11000	11		11000	11	11000	11
22		2,3,7,8-TCDF	0.1		23000	2300	23000	2300		15000	1500	15000	1500		13000	1300	13000	1300
23		Total TCDF	0		110000	0	110000	0		64000	0	64000	0		56000	0	56000	0
24		1,2,3,7,8-PCDF	0.05		20000	1000	20000	1000		15000	750	15000	750		14000	700	14000	700
25		2,3,4,7,8-PCDF	0.5		9300	4650	9300	4650		7300	3650	7300	3650		7400	3700	7400	3700
26		Total PCDF	0		120000	0	120000	0		79000	0	79000	0		74000	0	74000	0
27		1,2,3,4,7,8-HxCDF	0.1		39000	3900	39000	3900		31000	3100	31000	3100		31000	3100	31000	3100
28		1,2,3,6,7,8-HxCDF	0.1		19000	1900	19000	1900		16000	1600	16000	1600		16000	1600	16000	1600
29		2,3,4,6,7,8-HxCDF	0.1		11000	1100	11000	1100		9700	970	9700	970		9700	970	9700	970
30		1,2,3,7,8,9-HxCDF	0.1		7400	740	7400	740		6900	690	6900	690		6800	680	6800	680
31		Total HxCDF	0		150000	0	150000	0		120000	0	120000	0		120000	0	120000	0
32		1,2,3,4,6,7,8-HpCDF	0.01		110000	1100	110000	1100		92000	920	92000	920		90000	900	90000	900
33		1,2,3,4,7,8,9-HpCDF	0.01		14000	140	14000	140		13000	130	13000	130		12000	120	12000	120
34		Total HCDF	0		160000	0	160000	0		140000	0	140000	0		140000	0	140000	0
35		OCDF	0.001		70000	70	70000	70		74000	74	74000	74		74000	74	74000	74
36																		
37		Gas sample volume (dscf)				115.04	115.04	115.04			120.87	120.87	120.87			122.93	122.93	122.93
38		O2 (%)				11.0	11.0	11.0			11.0	11.0	11.0			11	11	11
39																		
40		PCDD/PCDF (pg in sample)				19226	683100	19226			15010	529500	15010			14686	514800	14686
41		PCDD/PCDF (ng/dscm @ 7% O2)		0.0		8.27	293.74	8.27	0.0		6.14	216.71	6.14	0.0		5.91	207.17	5.91
42																		
43		TEQ Cond Avg	6.77															
44		Total Cond Avg	239.2															