	B	C
1	**Source Description**	
2		
3	Phase II ID No.	771
4	EPA ID No.	WAD092899574
5	Facility Name	Kalama Chemical (BF Goodrich)
6	Facility Location	
7	City	Kalama
8	State	WA
9	Unit ID Name/No.	U-3 Boiler
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. A-type package watertube, 30,000 lb/hr steam @ 250 psig, refractory lined combustion chamber, 50 MMBtu/hr
15	Capacity (MMBtu/hr)	50
16	Soot Blowing	Yes
17	APCS Detailed Acronym	FF
18	APCS General Class	FF
19	APCS Characteristics	Air-to-cloth ratio of 4.06:1, fiberglass bags, reverse pulse jet cleaning
20	Hazardous Wastes	Liq
21	Haz Waste Description	Liquid organic chemicals -- tars, aromatic hydrocarbon and alcohol liquid wastes (methanol, benzene)
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	3.33
26	Height (ft)	50
27	Gas Velocity (ft/sec)	29.0
28	Gas Temperature (°F)	295
29		
30	Permitting Status	Tier I metals (except Cr) and HCl/Cl2
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Cond Description**	
2		
3	**771C1**	
4		
5	Report Name/Date	Trial Burn Report Addendum U-3 Boiler, December 1997
6	Report Prepare	IT Corporation
7	Testing Firm	IT Corporation
8	Testing Dates	June 28-30, 1996
9	Cond Dates	Jun-96
10	Condition Descr	Trial burn; max comb temp, max prod rate, max benzene
11	Content	CO, PM, Cr+6, D/F (spiked ash, Cr, Cl)
12		
13	**771C2**	
14		
15	Report Name/Date	Trial Burn Report Addendum U-3 Boiler, December 1997
16	Report Prepare	IT Corporation
17	Testing Firm	IT Corporation
18	Testing Dates	June 25-27, 1996
19	Cond Dates	Jun-96
20	Condition Descr	Trial burn; min comb temp and min prod rate, max moisture/methanol feed
21	Content	CO, PM, D/F (spiked ash, Cl)

	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	**771C1**					R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.00255		0.00391		0.00358		0.0027
9	CO (RA)	E1	ppmv	y		17.1		5.6		1.9		8.2
10	Chromium (Hex)		gr/dscf	y		2.81E-06		3.18E-06		4.26E-06		
11												
12	Sampling Train	PM	E1									
13	Stack Gas Flowrate		dscfm			8874		8186		8997		8686
14	O2		%			4.5		4.8		4.2		4.5
15	Moisture		%			12.91		15.54		13.04		13.83
16	Temperature		°F			297		295		298		296.7
17												
18	Sampling Train	Cr (+6)	E2									
19	Stack Gas Flowrate		dscfm			9090		7955		8165		8430
20	O2		%			4.5		4.8		4.2		4.5
21	Moisture		%			12.91		15.54		13.04		13.83
22	Temperature		°F			293		299		303		298
23												
24	Chromium (Hex)	E2	µg/dscm	y		6.44		7.29		9.76		7.83E+00
25												
26	POHC DRE	Benzene										
27	POHC Feedrate		lb/hr			1156		1285		1208		
28	Emission Rate	E1	lb/hr			2.62E-03		1.34E-03		2.20E-03		
29	DRE	E1	%			99.99977		99.9999		99.99982		
30												
31	POHC DRE	Methanol										
32	POHC Feedrate		lb/hr			410		354		359		
33	Emission Rate	E1	lb/hr			1.08E-03		9.81E-03		7.20E-03		
34	DRE	E1	%			99.9974		99.9972		99.998		
35												
36								Sootblow		Sootblow		
37	**771C2**					R1		R2		R3		Cond Avg
38												
39	PM	E1	gr/dscf	y		0.00239		0.00468		0.00546		0.0037
40	CO (RA)	E1	ppmv	y		8.7		4.6		7.8		7.0
41												
42	Sampling Train	PM	E1									
43	Stack Gas Flowrate		dscfm			10000		10030		10062		10031
44	O2		%			8		7.4		10.1		8.5
45	Moisture		%			10.86		11		10.97		10.94
46	Temperature		°F			300		294		286		293.3
47												
48	POHC DRE	Benzene										
49	POHC Feedrate		lb/hr			585		545		516		
50	Emission Rate	E1	lb/hr			0.0009		0.0034		0.0016		
51	DRE	E1	%			99.99983		99.99931		99.99969		
52												
53	POHC DRE	Methanol										
54	POHC Feedrate		lb/hr			1619		1607		1603		
55	Emission Rate	E1	lb/hr			0.0092		0.0068		0.0087		
56	DRE	E1	%			99.99943		99.99958		99.99946		

	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	**771C1**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
4																								
5	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	
6	Feed Class				Li q HW		Li q HW		Li q HW		Li q HW		NG		NG		NG		NG		Total		Total	
7	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Total		Total	
8	Feedstream Description				Liq. wastes		Liq. wastes		Liq. wastes		Liq. wastes		Natural gas		Natural gas		Natural gas		Natural gas		Total		Total	
9	Feed Rate		lb/min		27.34		27.46		27.2		27.3		16.41		15.5		16.2		16.0					
10	Heating Value		Btu/lb		14000		14000		14000		14000		23452		23452		23452		23452					
11	Ash		lb/hr		110.7		100.5		109.3		106.9													
12	Chlorine		lb/hr		2.051		1.895		2.366		2.1													
13	Antimony		ppmw	nd	0.025	nd	0.025		0.03		0.027													
14	Arsenic		ppmw		0.04		0.19		0.21		0.15													
15	Barium		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
16	Beryllium		ppmw	nd	0.2	nd	0.2	nd	0.2		0.2													
17	Cadmium		ppmw	nd	0.2	nd	0.2	nd	0.2		0.2													
18	Chromium		ppmw		81		76		83		80													
19	Copper		ppmw		74		56		61		63.7													
20	Lead		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
21	Mercury		ppmw	nd	0.25	nd	0.25	nd	0.25		0.25													
22	Nickel		ppmw		1.3		2		2.1		1.8													
23	Selenium		ppmw	nd	0.05	nd	0.05	nd	0.05		0.06													
24	Silver		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
25	Thallium		ppmw	nd	0.025	nd	0.025	nd	0.025		0.025													
26																								
27	Stack Gas Flowrate		dscfm		8874		8186		8997		8686													
28	Oxygen		%		5		5		4		5													
29																								
30	Thermal Feedrate		MMBtu/hr		23.0		23.1		22.8		23.0		23.1		21.8		22.8		22.6		46.1		44.9	
31	Estimated Firing Rate		MMBtu/hr								45.50													
32																								
33	*Feedrate MTEC Calculations*																							
34	Ash		mg/dscm		2830.0		2836.8		2706.8	0	2791									0	2830	0	2837	0
35	Chlorine		ug/dscm		52433		53490		58594	0	54839									0	52433	0	53490	0
36	Antimony		ug/dscm	100	1.0	100	1.2		1.2	65	1.1									100	1.0	100	1.2	0
37	Arsenic		ug/dscm		1.7		8.8		8.5	0	6.3									0	1.7	0	8.8	0
38	Barium		ug/dscm	100	21.0	100	23.3	100	20.2	100	21.5									100	21.0	100	23.3	100
39	Beryllium		ug/dscm	100	8.4	100	9.3	100	8.1	100	8.6									100	8.4	100	9.3	100
40	Cadmium		ug/dscm	100	8.4	100	9.3	100	8.1	100	8.6									100	8.4	100	9.3	100
41	Chromium		ug/dscm		3396.9		3534.5		3354.6	0	3428.6									0	3397	0	3534	0
42	Copper		ug/dscm		3103.3		2604.3		2465.4	0	2724.4									0	3103	0	2604	0
43	Lead		ug/dscm	100	21.0	100	23.3	100	20.2	100	21.5									100	21.0	100	23.3	100
44	Mercury		ug/dscm	100	10.5	100	11.6	100	10.1	100	10.7									100	10.5	100	11.6	100
45	Nickel		ug/dscm		54.5		93.0		84.9	0	77.5									0	54.5	0	93.0	0
46	Selenium		ug/dscm	100	2.1	100	2.3	100	2.0	100	2.1									100	2.1	100	2.3	100
47	Silver		ug/dscm	100	21.0	100	23.3	100	20.2	100	21.5									100	21.0	100	23.3	100
48	Thallium		ug/dscm	100	1.0	100	1.2	100	1.0	100	1.1									100	1.0	100	1.2	100
49																								
50	SVM		ug/dscm	100	29.4	100	32.6	100	28.3	100	30.1									100	29.4	100	32.6	100
51	LVM		ug/dscm	0	3406.9	0	3552.6	0	3371.1	0	3443.6									0	3407	0	3553	0
52																								
53																								
54																								
55	**771C2**				R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
56																								
57	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	
58	Feed Class				Li q HW		Li q HW		Li q HW		Li q HW		NG		NG		NG		NG		Total		Total	
59	Feed Class 2				HW		HW		HW		HW		MF		MF		MF		MF		Total		Total	
60	Feedstream Description				Liq. wastes		Liq. wastes		Liq. wastes		Liq. wastes		Natural gas		Natural gas		Natural gas		Natural gas		Total		Total	

	B	Z	AA	AB	AC
1	**Feedstreams**				
2					
3	**771C1**	R3		Cond Avg	
4					
5	Feedstream Number	F3		F3	
6	Feed Class	Total		Total	
7	Feed Class 2	Total		Total	
8	Feedstream Description	Total		Total	
9	Feed Rate				
10	Heating Value				
11	Ash				spiked, ?
12	Chlorine				spiked, ?
13	Antimony				
14	Arsenic				
15	Barium				
16	Beryllium				
17	Cadmium				
18	Chromium				spiked, ?
19	Copper				
20	Lead				
21	Mercury				
22	Nickel				
23	Selenium				
24	Silver				
25	Thallium				
26					
27	Stack Gas Flowrate			8686	
28	Oxygen			4.5	
29					
30	Thermal Feedrate	45.7		45.5	
31	Estimated Firing Rate			45.5	
32					
33	*Feedrate MTEC Calculatio*				
34	Ash	2707	0	2791.2	
35	Chlorine	58594	0	54839.0	
36	Antimony	1.2	65	1.1	
37	Arsenic	8.5	0	6.3	
38	Barium	20.2	100	21.5	
39	Beryllium	8.1	100	8.6	
40	Cadmium	8.1	100	8.6	
41	Chromium	3355	0	3428.6	
42	Copper	2465	0	2724.4	
43	Lead	20.2	100	21.5	
44	Mercury	10.1	100	10.7	
45	Nickel	84.9	0	77.5	
46	Selenium	2.0	100	2.1	
47	Silver	20.2	100	21.5	
48	Thallium	1.0	100	1.1	
49					
50	SVM	28.3	100	30.1	
51	LVM	3371	0	3443.6	
52					
53					
54					
55	**771C2**	R3		Cond Avg	
56					
57	Feedstream Number	F3		F3	
58	Feed Class	Total		Total	
59	Feed Class 2	Total		Total	
60	Feedstream Description	Total		Total	

	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 Rate		lb/min		45.35		45.39		45.29		45.3		0.0		0.0		0.0		0.01					
62	Heating Value		Btu/lb		8583		8583		8583		8583		23452		23452		23452		23452					
63	Ash		lb/hr		98		95.3		119.6		104.3													
64	Chlorine		lb/hr		0.816		2.179		2.446		1.814													
65	Antimony		ppmw	nd	0.025	nd	0.025	nd	0.025		0.025													
66	Arsenic		ppmw		0.04	nd	0.025		0.06		0.042													
67	Barium		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
68	Beryllium		ppmw	nd	0.2	nd	0.2	nd	0.2		0.2													
69	Cadmium		ppmw	nd	0.2	nd	0.2	nd	0.2		0.2													
70	Chromium		ppmw		2.1		0.9		1.6		1.53													
71	Cumene		ppmw		44		50		45		46.3													
72	Lead		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
73	Mercury		ppmw	nd	0.25	nd	0.25	nd	0.25		0.25													
74	Nickel		ppmw		1.3		0.5		0.8		0.87													
75	Selenium		ppmw	nd	0.05	nd	0.05	nd	0.05		0.05													
76	Silver		ppmw	nd	0.5	nd	0.5	nd	0.5		0.5													
77	Thallium		ppmw	nd	0.025	nd	0.025	nd	0.025		0.025													
78																								
79	Stack Gas Flowrate		dscfm		10000		10030		10062		10031													
80	Oxygen		%		8		7.4		10.1		8.5													
81																								
82	Thermal Feedrate		MMBtu/hr		23.4		23.4		23.3		23.3								0.0		23.4		23.4	
83	Estimated Firing Rate		MMBtu/hr																					
84																								
85	*Feedrate MTEC Calculations*																							
86	Ash		mg/dscm		2821.8		2615.2		4081.9	0	3173.0								0		2821.8	0	2615.2	0
87	Chlorine		ug/dscm		23496		59795		83482	0	55590.9								0		23495.9	0	59794.8	0
88	Antimony		ug/dscm	100	2.0	100	1.9	100	2.3	100	2.0								100		2.0	100	1.9	100
89	Arsenic		ug/dscm		3.1	100	1.9		5.6	18	3.5								0		3.1	100	1.9	0
90	Barium		ug/dscm	100	39.2	100	37.4	100	46.4	100	41.0								100		39.2	100	37.4	100
91	Beryllium		ug/dscm	100	15.7	100	14.9	100	18.5	100	16.4								100		15.7	100	14.9	100
92	Cadmium		ug/dscm	100	15.7	100	14.9	100	18.5	100	16.4								100		15.7	100	14.9	100
93	Chromium		ug/dscm		164.5		67.3		148.4	0	126.7								0		164.5	0	67.3	0
94	Cumene		ug/dscm		3447.3		3736.7		4173.5	0	3785.8								0		3447.3	0	3736.7	0
95	Lead		ug/dscm	100	39.2	100	37.4	100	46.4	100	41.0								100		39.2	100	37.4	100
96	Mercury		ug/dscm	100	19.6	100	18.7	100	23.2	100	20.5								100		19.6	100	18.7	100
97	Nickel		ug/dscm		101.9		37.4		74.2	0	71.1								0		101.9	0	37.4	0
98	Selenium		ug/dscm	100	3.9	100	3.7	100	4.6	100	4.1								100		3.9	100	3.7	100
99	Silver		ug/dscm	100	39.2	100	37.4	100	46.4	100	41.0								100		39.2	100	37.4	100
100	Thallium		ug/dscm	100	2.0	100	1.9	100	2.3	100	2.0								100		2.0	100	1.9	100
101																								
102	SVM		ug/dscm	100	54.8	100	52.3	100	64.9	100	57.4								100		54.8	100	52.3	100
103	LVM		ug/dscm	9	183.3	20	84.1	11	172.5	12	146.6								9		183.3	20	84.1	11
104																								
105																								
106	**BIF Feedrate Limits**																							
107																								
108	Arsenic		lb/hr								0.0044													
109	Antimony		lb/hr								1.09													
110	Beryllium		lb/hr								0.0033													
111	Barium		lb/hr								181													
112	Cadmium		lb/hr								0.0033													
113	Chromium		lb/hr								0.00026													
114	Lead		lb/hr								0.33													
115	Mercury		lb/hr								0.29													
116	Silver		lb/hr								10.87													
117	Thallium		lb/hr								1.09													
118	Chlorine		lb/hr								1.45													

	B	Z	AA	AB	AC
61	Feed Rate				
62	Heating Value				
63	Ash				spiked, ?
64	Chlorine				spiked, ?
65	Antimony				
66	Arsenic				
67	Barium				
68	Beryllium				
69	Cadmium				
70	Chromium				
71	Cumene				spiked, ?
72	Lead				
73	Mercury				
74	Nickel				
75	Selenium				
76	Silver				
77	Thallium				
78					
79	Stack Gas Flowrate			10031	
80	Oxygen			8.5	
81					
82	Thermal Feedrate	23.3		23.4	
83	Estimated Firing Rate			39.8	
84					
85	*Feedrate MTEC Calculatio*				
86	Ash	4081.9	0	3173.0	
87	Chlorine	83481.8	0	55590.9	
88	Antimony	2.3	100	2.0	
89	Arsenic	5.6	18	3.5	
90	Barium	46.4	100	41.0	
91	Beryllium	18.5	100	16.4	
92	Cadmium	18.5	100	16.4	
93	Chromium	148.4	0	126.7	
94	Cumene	4173.5	0	3785.8	
95	Lead	46.4	100	41.0	
96	Mercury	23.2	100	20.5	
97	Nickel	74.2	0	71.1	
98	Selenium	4.6	100	4.1	
99	Silver	46.4	100	41.0	
100	Thallium	2.3	100	2.0	
101					
102	SVM	64.9		57.4	
103	LVM	172.5		146.6	
104					
105					
106	**BIF Feedrate Limits**				
107					
108	Arsenic				
109	Antimony				
110	Beryllium				
111	Barium				
112	Cadmium				
113	Chromium				
114	Lead				
115	Mercury				
116	Silver				
117	Thallium				
118	Chlorine				

	A	B	C
1	**Process Information**		
2			
3	**771C1**		
4			
5	Baghouse Temp	F	324
6	Steam Prod	lb/hr	37840
7	Furnace Temp	F	1908
8			
9	**771C2**		
10			
11	Baghouse Temp	F	319
12	Steam Prod	lb/hr	20380
13	Furnace Temp	F	1357

PCDD/PCDF

N

Facility Name and ID: Kalama Chemical, Inc.

Condition ID: 771C1

Condition/Test Date: Risk burn, June 28-30 1996

	I-TEF Wght Fact		Run 4 Total Full ND	Run 4 TEQ Full ND	Run 4 Total 1/2 ND	Run 4 TEQ 1/2 ND		Run 5 Total Full ND	Run 5 TEQ Full ND	Run 5 Total 1/2 ND	Run 5 TEQ 1/2 ND		Run 6 Total Full ND	Run 6 TEQ Full ND	Run 6 Total 1/2 ND	Run 6 TEQ 1/2 ND
Detected in sample volume (pg)																
2,3,7,8-TCDD	1	nd	7.9	7.900	4.0	3.950	nd	7	7.000	3.5	3.500	nd	18.0	18.000	9.0	9.000
TCDD Total	0		53.0	0.000	53.0	0.000		190	0.000	190.0	0.000		240.0	0.000	240.0	0.000
1,2,3,7,8-PCDD	0.5	nd	4.1	2.050	2.1	1.025	nd	5.2	2.600	2.6	1.300	nd	14.0	7.000	7.0	3.500
PCDD Total	0	nd	28.0	0.000	14.0	0.000		350	0.000	350.0	0.000		290.0	0.000	290.0	0.000
1,2,3,4,7,8-HxCDD	0.1	nd	25.0	2.500	12.5	1.250	nd	1.6	0.160	0.8	0.080	nd	34.0	3.400	17.0	1.700
1,2,3,6,7,8-HxCDD	0.1	nd	23.0	2.300	11.5	1.150	nd	30	3.000	15.0	1.500	nd	32.0	3.200	16.0	1.600
1,2,3,7,8,9-HxCDD	0.1	nd	26.0	2.600	13.0	1.300	nd	21	2.100	10.5	1.050	nd	36.0	3.600	18.0	1.800
HxCDD Total	0		320.0	0.000	320.0	0.000		1100	0.000	1100.0	0.000		560.0	0.000	560.0	0.000
1,2,3,4,6,7,8-HpCDD	0.01		81.0	0.810	81.0	0.810		180	1.800	180.0	1.800		73.0	0.730	73.0	0.730
HpCDD Total	0		170.0	0.000	34.0	0.000		430	0.000	430.0	0.000		190.0	0.000	190.0	0.000
OCDD	0.001		350.0	0.350	350.0	0.350		580	0.580	580.0	0.580		280.0	0.280	280.0	0.280
2,3,7,8-TCDF	0.1	nd	7.6	0.760	3.8	0.380	nd	4.5	0.450	2.3	0.225	nd	9.4	0.940	4.7	0.470
TCDF Total	0		53.0	0.000	53.0	0.000		120	0.000	120.0	0.000		18.0	0.000	18.0	0.000
1,2,3,7,8-PCDF	0.05	nd	5.1	0.255	2.6	0.128	nd	5.4	0.270	2.7	0.135	nd	11.0	0.550	5.5	0.275
2,3,4,7,8-PCDF	0.5	nd	4.4	2.200	2.2	1.100	nd	7.7	3.850	3.9	1.925	nd	10.0	5.000	5.0	2.500
PCDF Total	0	nd	15.0	0.000	7.5	0.000	nd	22	0.000	11.0	0.000	nd	12.0	0.000	6.0	0.000
1,2,3,4,7,8-HxCDF	0.1	nd	5.0	0.500	2.5	0.250	nd	8.7	0.870	4.4	0.435	nd	6.8	0.680	3.4	0.340
1,2,3,6,7,8-HxCDF	0.1	nd	3.7	0.370	1.9	0.185	nd	6.2	0.620	3.1	0.310	nd	4.1	0.410	2.1	0.205
2,3,4,6,7,8-HxCDF	0.1	nd	4.8	0.480	2.4	0.240	nd	9.5	0.950	4.8	0.475	nd	6.8	0.680	3.4	0.340
1,2,3,7,8,9-HxCDF	0.1	nd	2.1	0.210	1.1	0.105	nd	2.2	0.220	1.1	0.110	nd	3.2	0.320	1.6	0.160
HxCDF Total	0	nd	7.4	0.000	3.7	0.000	nd	13	0.000	6.5	0.000	nd	8.6	0.000	4.3	0.000
1,2,3,4,6,7,8-HpCDF	0.01	nd	1.4	0.014	0.7	0.007	nd	14	0.140	7.0	0.070	nd	11.0	0.110	5.5	0.055
1,2,3,4,7,8,9-HpCDF	0.01	nd	0.4	0.004	0.2	0.002	nd	6.6	0.066	3.3	0.033	nd	25.0	0.250	12.5	0.125
HpCDF Total	0	nd	1.6	0.000	0.8	0.000	nd	16	0.000	8.0	0.000	nd	25.0	0.000	12.5	0.000
OCDF	0.001	nd	15.0	0.015	7.5	0.008	nd	25	0.025	12.5	0.013	nd	32.0	0.032	16.0	0.016
Gas sample volume (dscf)			78.60	78.60	78.60	78.60		71.60	71.60	71.60	71.60		73.10	73.10	73.10	73.10
O2 (%)			4.50	4.50	4.50	4.50		4.80	4.80	4.80	4.80		4.20	4.20	4.20	4.20
PCDD/PCDF (pg in sample)			1013.0	23.32	843.5	12.24		2846.0	24.7	2808.0	13.5		1655.60	45.1820	1616.80	23.0960
PCDD/PCDF (ng/dscm @ 7% O2)		95	0.39	0.0089	0.322	0.0047	90	1.21	0.0105	1.2	0.0058	98	0.67	0.018	0.651	0.009
TEQ Cond Avg	0.0066															
Total Cond Avg	0.724															

PCDD/PCDF

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Facility Name and ID: Kalama Chemical, Inc.

Condition ID: 771C2

Condition/Test Date: June 25-27 1996

	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	5.3	5.30	2.7	2.65	nd	7.2	7.2	3.6	3.6	nd	5.9	5.9000	3.0	2.9500
TCDD Total	0	nd	15.0	0.00	7.5	0.00		98	0.0	98.0	0.0		29.0	0.0000	29.0	0.0000
1,2,3,7,8-PCDD	0.5	nd	3.4	1.70	1.7	0.85	nd	3.1	1.6	1.6	0.8	nd	1.7	0.8500	0.9	0.4250
PCDD Total	0	nd	24.0	0.00	12.0	0.00	nd	49	0.0	24.5	0.0	nd	25.0	0.0000	12.5	0.0000
1,2,3,4,7,8-HxCDD	0.1	nd	3.3	0.33	1.7	0.17	nd	3.5	0.4	1.8	0.2	nd	2.0	0.2000	1.0	0.1000
1,2,3,6,7,8-HxCDD	0.1	nd	6.9	0.69	3.5	0.35	nd	11	1.1	5.5	0.6	nd	8.5	0.8500	4.3	0.4250
1,2,3,7,8,9-HxCDD	0.1	nd	7.0	0.70	3.5	0.35	nd	8.8	0.9	4.4	0.4	nd	5.6	0.5600	2.8	0.2800
HxCDD Total	0		180.0	0.00	180.0	0.00		870	0.0	870.0	0.0		340.0	0.0000	340.0	0.0000
1,2,3,4,6,7,8-HpCDD	0.01	nd	34.0	0.34	17.0	0.17		170	1.7	170.0	1.7		82.0	0.8200	82.0	0.8200
HpCDD Total	0	nd	35.0	0.00	34.0	0.00		350	0.0	350.0	0.0		170.0	0.0000	170.0	0.0000
OCDD	0.001		110.0	0.11	110.0	0.11		680	0.7	680.0	0.7		330.0	0.3300	330.0	0.3300
2,3,7,8-TCDF	0.1		11.0	1.10	11.0	1.10		11	1.1	11.0	1.1	nd	7.9	0.7900	4.0	0.3950
TCDF Total	0		67.0	0.00	67.0	0.00		120	0.0	120.0	0.0		44.0	0.0000	44.0	0.0000
1,2,3,7,8-PCDF	0.05	nd	4.3	0.22	2.2	0.11	nd	4.3	0.2	2.2	0.1	nd	2.6	0.1300	1.3	0.0650
2,3,4,7,8-PCDF	0.5	nd	5.2	2.60	2.6	1.30	nd	7.5	3.8	3.8	1.9	nd	5.2	2.6000	2.6	1.3000
PCDF Total	0	nd	14.0	0.00	7.0	0.00	nd	20	0.0	10.0	0.0	nd	13.0	0.0000	6.5	0.0000
1,2,3,4,7,8-HxCDF	0.1	nd	7.0	0.70	3.5	0.35	nd	6.6	0.7	3.3	0.3	nd	5.3	0.5300	2.7	0.2650
1,2,3,6,7,8-HxCDF	0.1	nd	4.4	0.44	2.2	0.22	nd	4.4	0.4	2.2	0.2	nd	3.8	0.3800	1.9	0.1900
2,3,4,6,7,8-HxCDF	0.1	nd	6.4	0.64	3.2	0.32	nd	6.4	0.6	3.2	0.3	nd	4.1	0.4100	2.1	0.2050
1,2,3,7,8,9-HxCDF	0.1	nd	5.2	0.52	2.6	0.26	nd	1.8	0.2	0.9	0.1	nd	0.9	0.0900	0.5	0.0450
HxCDF Total	0	nd	11.0	0.00	5.5	0.00	nd	12	0.0	6.0	0.0	nd	7.2	0.0000	3.6	0.0000
1,2,3,4,6,7,8-HpCDF	0.01	nd	18.0	0.18	9.0	0.09	nd	14	0.1	7.0	0.1	nd	9.0	0.0900	4.5	0.0450
1,2,3,4,7,8,9-HpCDF	0.01	nd	7.5	0.08	3.8	0.04	nd	4.3	0.0	2.2	0.0	nd	3.9	0.0390	2.0	0.0195
HpCDF Total	0	nd	18.0	0.00	9.0	0.00	nd	14	0.0	7.0	0.0	nd	9.0	0.0000	4.5	0.0000
OCDF	0.001	nd	38.0	0.04	19.0	0.02	nd	21	0.0	10.5	0.0	nd	17.0	0.0170	8.5	0.0085
Gas sample volume (dscf)			93.40	93.40	93.40	93.40		80.50	80.5	80.5	80.5		86.00	86.00	86.00	86.00
O2 (%)			8.00	8.00	8.00	8.00		7.40	7.40	7.40	7.40		10.10	10.10	10.10	10.10
PCDD/PCDF (pg in sample)			512.0	15.68	451.0	8.44		2234.0	20.6	2176.0	12.1		984.20	14.5860	948.6000	7.8680
PCDD/PCDF (ng/dscm @ 7% O2	92		0.21	0.0064	0.184	0.0034	83	1.01	0.0093	1.0	0.0055	92	0.52	0.008	0.501	0.004
TEQ Cond Avg	0.0043															
Total Cond Avg	0.556															