

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase II ID No.	815
4	EPA ID No.	LAD008213191
5	Facility Name	Rubicon, Inc
6	Facility Location	
7	City	Geismar
8	State	LA
9	Unit ID Name/No.	DPA II superheater
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid injection, process heater Turbulent burner chamber, separate tube banks. Process Heater/Boiler; Primary function to superheat a raw material used in Diphenylamine production. Only a small portion of the total heat input is utilized for steam production
14	Combustor Characteristics	
15	Capacity (MMBtu/hr)	20
16	Soot Blowing	
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	NA
20	Hazardous Wastes	Liq
	Haz Waste Description	Liquid waste -- TDA distillation bottoms, DPA light and heavy impurities, converter and process gases
21		
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	3.7
26	Height (ft)	80.5
27	Gas Velocity (ft/sec)	34.1
28	Gas Temperature (°F)	600
29		
30	Permitting Status	Tier I adjusted metals/chlorine
	HWC Burn Status (Date if Terminated)	
31		

	B	C
1	Cond Description	
2		
3	815C1	
4		
5	Report Name/Date	Risk Assessment Trial Burn Report, Dec. 29, 1997
6	Report Prepare	Focus Environmental Inc.
7	Testing Firm	Focus Environmental Inc.
8	Testing Dates	June 24, 1997
9	Cond Dates	Jun-97
10	Cond Description	Trial burn; min comb temp
11	Content	Organic destruction
12		
13	815C2	
14		
15	Report Name/Date	Risk Assessment Trial Burn Report, Dec. 29, 1997
16	Report Prepare	Focus Environmental Inc.
17	Testing Firm	Focus Environmental Inc.
18	Testing Dates	June 26 - July 1, 1997
19	Cond Dates	Jun-97
20	Cond Description	Trial burn, risk burn; max waste feedrate
21	Content	

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comm	Units	7%	O2							
4												
5												
6	815C1					R1		R2		R3		Cond Avg
7												
8	CO (RA)	E1	ppmv	y		16.3		23.4		19.3		19.7
9	CO (MHRA)	E1	ppmv	y		24.0		36.5		29.5		30.0
10												
11	POHC DRE		Orthodichlorobenzene									
12	Feed Rate											
13	Emission Rate		µg/dscm	n		0.21		0.21		0.19		
14	DRE	E1	%		>	99.999992	>	99.999993	>	99.99999		
15												
16	Sampling Train		Organic E1									
17	Stack Gas Flowrate		dscfm			3959		3916		3927		3934
18	O2		%			7.7		6.3		6.1		6.7
19	Moisture		%			61.2		61.5		61.9		61.5
20	Temperature		°F			585		585		588		586
21												
22	815C2					R1		R2		R3		Cond Avg
23												
24	PM	E1	gr/dscf	y		0.0076		0.0099		0.0108		0.0094
25	CO (RA)	E1	ppmv	y		10.5		8.6		10.7		9.9
26	CO (MHRA)	E1	ppmv	y		11.7		10.2		10.9		10.9
27	HCl		mg/dscm	n		1.04		5.83		1.13		2.67
28	Cl2		mg/dscm	n		0.05		0.75		0.07		0.29
29	Chromium (Hex)		µg/dscm	n		NA		6.16		2.82		4.49
30	Antimony		µg/dscm	n		16.60		15.60		14.60		15.60
31	Arsenic		µg/dscm	n	nd	2.71	nd	2.78	nd	2.61		2.70
32	Barium		µg/dscm	n		62.00		61.70		57.30		60.33
33	Beryllium		µg/dscm	n		0.12		0.12		0.11		0.12
34	Cadmium		µg/dscm	n	nd	0.11	nd	0.12	nd	0.11		0.11
35	Chromium		µg/dscm	n		13.40		11.40		12.90		12.57
36	Lead		µg/dscm	n		9.00		12.20		9.69		10.30
37	Mercury		µg/dscm	n		1.24	nd	1.07	nd	1.00		1.10
38	Nickel		µg/dscm	n		517.00		534.00		517.00		522.67
39	Selenium		µg/dscm	n		18.40		18.00		16.10		17.50
40	Silver		µg/dscm	n	nd	0.30	nd	0.31	nd	0.29		0.30
41	Thallium		µg/dscm	n	nd	6.74	nd	6.91	nd	6.48		6.71
42												
43	Sampling Train		PM, HCE1									
44	Stack Gas Flowrate		dscfm			4360		4385		4323		4356
45	O2		%			4.6		4.7		4.9		4.7
46	Moisture		%			64.1		63.0		63.7		63.6
47	Temperature		°F			609		609		611		610
48												
49	Sampling Train		Metals E2									
50	Stack Gas Flowrate		dscfm			3866		3791		4121		3926
51	O2		%			5.0		5.1		5.4		5.2
52	Moisture		%			64.4		64.0		63.8		64.0
53	Temperature		°F			604		604		608		605.33
54												
55	HCl	E1	ppmv	y		0.6		3.3		0.7		1.5
56	Cl2	E1	ppmv	y		0.0		0.2		0.0		0.1
57	Total Chlorine	E1	ppmv	y		0.6		3.8		0.7		1.7
58												
59	Chromium (Hex)	E2	µg/dscm	y				5.4		2.5		4.0
60												
61	Antimony	E2	µg/dscm	y		14.5		13.7		13.1		13.8
62	Arsenic	E2	µg/dscm	y	nd	2.4	nd	2.4	nd	2.3	100	2.4
63	Barium	E2	µg/dscm	y		54.3		54.3		51.4		53.3
64	Beryllium	E2	µg/dscm	y		0.1		0.1		0.1		0.1
65	Cadmium	E2	µg/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.1
66	Chromium	E2	µg/dscm	y		11.7		10.0		11.6		11.1
67	Lead	E2	µg/dscm	y		7.9		10.7		8.7		9.1
68	Mercury	E2	µg/dscm	y		1.1	nd	0.9	nd	0.9	62.9	1.0
69	Nickel	E2	µg/dscm	y		452.4		470.2		464.0		462.2
70	Selenium	E2	µg/dscm	y		16.1		15.8		14.4		15.5
71	Silver	E2	µg/dscm	y	nd	0.3	nd	0.3	nd	0.3	100	0.3

	B	C	D	E	F	G	H	I	J	K	L	M
72	Thallium	E2	µg/dscm	y	nd	5.9	nd	6.1	nd	5.8	100	5.9
73												
74	SVM	E2	µg/dscm	y	1	8.0	1	10.8	1	8.8	1.08	9.2
75	LVM	E2	µg/dscm	y	17	14.2	19	12.6	17	14.0	17.5	13.6

	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	815C1			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2			
5																									
6	Feedstream Number			F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3	
7	Feed Class			Liq HW		Liq HW		Liq HW		Liq HW		Process Gas		Process Gas		Process Gas		Process Gas		Process Gas		Liq HW		Liq HW	
8	Feed Class 2																								
9	Feedstream Description			Org liq waste		Org liq waste		Org liq waste		Org liq waste		Vac vent		Vac vent		Vac vent		Vac vent		Vac vent		Converter Purge		Converter Purge	
10	Feed Rate	lb/hr		643		642		643		642.7		716		838		841		798.3				10715		10757	
11	Feed Rate	scfh																							
12	Thermal Feedrate	MMBtu/hr		15.61		15.73		16.05		15.8															
13	Estimated Firing Rate	MMBtu/hr																							
14																									
15	Stack Gas Flowrate	dscfm		3959		3916		3927		3934															
16	O2	%		7.7		6.3		6.1		6.7															
17																									
18	815C2			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2			
19																									
20	Feedstream Number			F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3	
21	Feed Class			Liq HW		Liq HW		Liq HW		Liq HW		Gaseous HW		Gaseous HW		Gaseous HW		Gaseous HW		Gaseous HW		Gaseous HW		Gaseous HW	
22	Feed Class 2																								
23	Feedstream Description			Org liq waste		Org liq waste		Org liq waste		Org liq waste		Vac vent		Vac vent		Vac vent		Vac vent		Vac vent		Converter Purge		Converter Purge	
24	Feed Rate	lb/hr		692		692		693		692.3		524		517		554		531.7				10452		10455	
25	Feed Rate	scfh																							
26	Thermal Feedrate	MMBtu/hr		18.18		17.64		19		18.3															
27	Estimated Firing Rate	MMBtu/hr																							
28																									
29	Ash	lb/hr		2.03		2.47		2.24				1.05		1.08		1.19					0.41		0.41		
30	Chlorine	lb/hr	nd	1.50E-02	nd	1.52E-02	nd	1.51E-02		nd	2.33E-04	nd	2.27E-04	nd	2.52E-04				nd		2.45E-04	nd	2.45E-04	nd	
31	Antimony	lb/hr	nd	1.06E-03	nd	1.08E-03	nd	1.07E-03		nd	1.54E-05	nd	1.48E-05	nd	1.61E-05				nd		2.92E-04	nd	2.92E-04	nd	
32	Arsenic	lb/hr	nd	1.80E-04	nd	1.82E-04	nd	1.80E-04		nd	2.16E-06	nd	2.24E-06	nd	2.24E-06				nd		2.07E-07	nd	2.07E-07	nd	
33	Barium	lb/hr	nd	5.60E-04	nd	5.75E-04	nd	5.70E-04		nd	1.54E-05	nd	1.51E-05	nd	1.61E-05				nd		6.00E-05	nd	6.01E-05	nd	
34	Beryllium	lb/hr	nd	1.77E-04	nd	1.78E-04	nd	1.77E-04		nd	1.14E-06	nd	1.10E-06	nd	1.12E-06				nd		2.07E-07	nd	2.07E-07	nd	
35	Cadmium	lb/hr	nd	1.78E-04	nd	1.79E-04	nd	1.78E-04		nd	1.08E-06	nd	1.10E-06	nd	1.12E-06				nd		7.25E-07	nd	7.25E-07	nd	
36	Chromium	lb/hr	nd	2.09E-04	nd	2.15E-04	nd	2.12E-04		nd	5.93E-06	nd	6.02E-06	nd	6.13E-06				nd		8.38E-06	nd	8.39E-06	nd	
37	Lead	lb/hr	nd	4.04E-04	nd	4.08E-04	nd	4.06E-04		nd	4.85E-06	nd	4.92E-06	nd	5.01E-06				nd		1.90E-05	nd	1.90E-05	nd	
38	Mercury	lb/hr	nd	1.52E-04	nd	1.54E-04	nd	1.53E-04		nd	2.29E-06	nd	2.20E-06	nd	2.40E-06				nd		3.52E-06	nd	3.52E-06	nd	
39	Nickel	lb/hr		6.85E-03		5.75E-03		6.30E-03																	
40	Selenium	lb/hr	nd	3.46E-04	nd	3.46E-04	nd	3.46E-04																	
41	Silver	lb/hr	nd	2.42E-04	nd	2.44E-04	nd	2.43E-04		nd	1.62E-06	nd	1.65E-06	nd	1.80E-06				nd		2.77E-05	nd	2.77E-05	nd	
42	Thallium	lb/hr	nd	4.29E-04	nd	4.35E-04	nd	4.32E-04		nd	5.39E-06	nd	5.47E-06	nd	5.98E-06				nd		2.96E-05	nd	2.96E-05	nd	
43																									
44	Stack Gas Flowrate	dscfm		4360.0		4385.0		4323.0		4356.0		4360.0		4385.0		4323.0		4356.0				4360.0		4385.0	
45	Oxygen	%		4.6		4.7		4.9		4.7		4.6		4.7		4.9		4.7				4.6		4.7	
46																									
47	<i>Feedrate MTEC Calculations</i>																								
48	Ash	mg/dscm		106.3		129.4		120.5		118.7		55.0		56.6		64.0		58.5				21.5		21.5	
49	Chlorine	ug/dscm	100	785.2	100	796.0	100	812.1	100	797.8	100	12.2	100	11.9	100	13.6	100	12.5	100			12.8	100	12.8	100
50	Antimony	ug/dscm	100	55.5	100	56.6	100	57.5	100	56.5	100	0.8	100	0.8	100	0.9	100	0.8	100			15.3	100	15.3	100
51	Arsenic	ug/dscm	100	9.4	100	9.5	100	9.7	100	9.5	100	0.1	100	0.1	100	0.0	100	0.1	100			0.0	100	0.0	100
52	Barium	ug/dscm	100	29.3	100	30.1	100	30.7	100	30.0	100	0.8	100	0.8	100	0.9	100	0.8	100			3.1	100	3.1	100
53	Beryllium	ug/dscm	100	9.3	100	9.3	100	9.5	100	9.4	100	0.1	100	0.1	100	0.1	100	0.1	100			0.0	100	0.0	100
54	Cadmium	ug/dscm	100	9.3	100	9.4	100	9.6	100	9.4	100	0.1	100	0.1	100	0.1	100	0.1	100			0.0	100	0.0	100
55	Chromium	ug/dscm	100	10.9	100	11.3	100	11.4	100	11.2	100	0.3	100	0.3	100	0.3	100	0.3	100			0.4	100	0.4	100
56	Lead	ug/dscm	100	21.1	100	21.4	100	21.8	100	21.5	100	0.3	100	0.3	100	0.3	100	0.3	100			1.0	100	1.0	100
57	Mercury	ug/dscm	100	8.0	100	8.1	100	8.2	100	8.1	100	0.1	100	0.1	100	0.1	100	0.1	100			0.2	100	0.2	100
58	Nickel	ug/dscm		358.6		301.1		338.8		332.9															
59	Selenium	ug/dscm	100	18.1	100	18.1	100	18.6	100	18.3															
60	Silver	ug/dscm	100	12.7	100	12.8	100	13.1	100	12.8	100	0.1	100	0.1	100	0.1	100	0.1	100			1.5	100	1.5	100

	B	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
1	Feedstreams																								
2																									
3																									
4	815C1	R3		Cond Avg		R1		R2		R3		Cond Avg	R1		R2		R3		Cond Avg	R1		R2			
5																									
6	Feedstream Number	F3		F3									F4		F4		F4		F4		F5		F5		
7	Feed Class	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	Converter Purge		Converter Purge									Nat gas		Nat gas		Nat gas		Nat gas		ODCB spike		ODCB spike		
10	Feed Rate	10773		10748.3																	19.6		20.5		
11	Feed Rate													3980	4052		4348		4126.7						
12	Thermal Feedrate					15.61		15.73		16.05		15.7967		4.0	4.1		4.3		4.1						
13	Estimated Firing Rate																								
14																									
15	Stack Gas Flowrate																								
16	O2																								
17																									
18	815C2	R3		Cond Avg		R1		R2		R3		Cond Avg	R1		R2		R3		Cond Avg	R1		R2			
19																									
20	Feedstream Number	F3		F3									F4		F4		F4		F4		F5		F5		
21	Feed Class	Gaseous HW		Gaseous HW									NG		NG		NG		NG		Spike		Spike		
22	Feed Class 2					HW		HW		HW		HW	MF		MF		MF		MF		Spike		Spike		
23	Feedstream Description	Converter Purge		Converter Purge									Nat gas		Nat gas		Nat gas		Nat gas		ODCB spike		ODCB spike		
24	Feed Rate	10458		10455.0																					
25	Feed Rate													6450	6404		6894		6582.7						
26	Thermal Feedrate					18.18		17.64		19		18.2733		6.45	6.40		6.89		6.58						
27	Estimated Firing Rate																								
28																									
29	Ash	0.41																							
30	Chlorine	2.45E-04																			nd	1.43E-02	nd	1.43E-02	nd
31	Antimony	2.92E-04																							
32	Arsenic	2.07E-07																							
33	Barium	6.01E-05																							
34	Beryllium	2.07E-07																							
35	Cadmium	7.25E-07																							
36	Chromium	8.39E-06																							
37	Lead	1.90E-05																							
38	Mercury	3.52E-06																							
39	Nickel																								
40	Selenium																								
41	Silver	2.77E-05																							
42	Thallium	2.96E-05																							
43																									
44	Stack Gas Flowrate	4323.0		4356.0																	4356.0		4360.0		
45	Oxygen	4.9		4.7																	4.7		4.6		
46																									
47	<i>Feedrate MTEC Calculati</i>																								
48	Ash	22.1		21.7	0	182.7	0	207.4	0	206.5	0	198.9													
49	Chlorine	13.2	100	12.9	100	810.3	100	820.8	100	838.8	100	823.3									100	755.4	100	748.6	100
50	Antimony	15.7	100	15.4	100	71.6	100	72.6	100	74.1	100	72.8													
51	Arsenic	0.0	100	0.01	100	9.5	100	9.7	100	9.7	100	9.6													
52	Barium	3.2	100	3.2	100	33.3	100	34.1	100	34.8	100	34.0													
53	Beryllium	0.0	100	0.01	100	9.3	100	9.4	100	9.6	100	9.4													
54	Cadmium	0.0	100	0.04	100	9.4	100	9.5	100	9.7	100	9.5													
55	Chromium	0.5	100	0.4	100	11.7	100	12.0	100	12.2	100	12.0													
56	Lead	1.0	100	1.0	100	22.4	100	22.6	100	23.1	100	22.7													
57	Mercury	0.2	100	0.2	100	8.3	100	8.4	100	8.5	100	8.4													
58	Nickel			0	358.6	0	301.1	0	338.8	0	332.9														
59	Selenium			100	18.1	100	18.1	100	18.6	100	18.3														
60	Silver	1.5		1.5	100	14.2	100	14.3	100	14.7	90	14.4													

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
1	Feedstreams											
2												
3												
4	815C1	R3		Cond Avg	R1		R2		R3			Cond Avg
5												
6	Feedstream Number	F5		F5	F6		F6		F6			F6
7	Feed Class	Spike		Spike	Total		Total		Total			Total
8	Feed Class 2	Spike		Spike	Total		Total		Total			Total
9	Feedstream Description	DCB spike		ODCB spike	Total		Total		Total			Total
10	Feed Rate	20.2		20.1								
11	Feed Rate											
12	Thermal Feedrate					19.6		19.8		20.4		19.9
13	Estimated Firing Rate					16.7		18.3		18.6		17.9
14												
15	Stack Gas Flowrate					3959		3916		3927		3934
16	O2					7.7		6.3		6.1		6.7
17												
18	815C2	R3		Cond Avg	R1		R2		R3			Cond Avg
19												
20	Feedstream Number	F5		F5	F6		F6		F6			F6
21	Feed Class	Spike		Spike	Total		Total		Total			Total
22	Feed Class 2	Spike		Spike	Total		Total		Total			Total
23	Feedstream Description	DCB spike		ODCB spike	Total		Total		Total			Total
24	Feed Rate											
25	Feed Rate											
26	Thermal Feedrate					24.63		24.04		25.89		24.86
27	Estimated Firing Rate					22.5		22.7		22.7		22.1
28												
29	Ash											
30	Chlorine	1.44E-02		1.4E-02								
31	Antimony											
32	Arsenic											
33	Barium											
34	Beryllium											
35	Cadmium											
36	Chromium											
37	Lead											
38	Mercury											
39	Nickel											
40	Selenium											
41	Silver											
42	Thallium											
43												
44	Stack Gas Flowrate	4385.0		4323.0		4356.0		4360.0		4385.0		4323.0
45	Oxygen	4.7		4.9		4.7		4.6		4.7		4.9
46												
47	<i>Feedrate MTEC Calculati</i>											
48	Ash					182.7		207.4		206.5		198.9
49	Chlorine	754.1	100	752.73	100	1565.7	100	1569.4	100	1593.0	100	1576.0
50	Antimony				100	71.6	100	72.6	100	74.1	100	72.8
51	Arsenic				100	9.5	100	9.7	100	9.7	100	9.6
52	Barium				100	33.3	100	34.1	100	34.8	100	34.0
53	Beryllium				100	9.3	100	9.4	100	9.6	100	9.4
54	Cadmium				100	9.4	100	9.5	100	9.7	100	9.5
55	Chromium				100	11.7	100	12.0	100	12.2	100	12.0
56	Lead				100	22.4	100	22.6	100	23.1	100	22.7
57	Mercury				100	8.3	100	8.4	100	8.5	100	8.4
58	Nickel				0	358.6	0	301.1	0	338.8	0	332.9
59	Selenium				100	18.1	100	18.1	100	18.6	100	18.3
60	Silver				100	14.2	100	14.3	100	14.7	90	14.4

	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	Thallium		ug/dscm	100		22.5	100		22.8	100		23.2	100		22.8	100		0.3	100		0.3	100		0.3	100		0.3	100		1.5	100		1.6	100
62																																		
63	SVM		ug/dscm			30.5			30.7			31.4			30.9			0.3			0.3			0.3			0.3			1.0			1.0	
64	LVM		ug/dscm			29.6			30.1			30.6			30.1			0.5			0.5			0.4			0.5			0.5			0.5	

	B	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW
61	Thallium	1.6		1.6	100	24.3	100	24.6	100	25.1	94	24.7													
62																									
63	SVM	1.1		0.5	100	31.8	100	32.1	100	32.8	100	32.2													
64	LVM	0.5		0.2	100	30.6	100	31.1	100	31.5	100	31.0													

	B	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
61	Thallium				100	24.3	100	24.6	100	25.1	94	24.7
62												
63	SVM				100	31.8	100	32.1	100	32.8	100	32.2
64	LVM				100	30.6	100	31.1	100	31.5	100	31.0

	A	B	C	D	E	F
1	Process Information					
2						
3						
4		Units	Run 1	Run 2	Run 3	Avg
5	815C1					
6						
7	Combustion Temp	°F	1811	1795	1797	1801
8						
9	815C2 (A,B,C runs)					
10						
11	Combustion Temp	°F	1945	1945	1945	1945

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:	Rubicon (Geismar LA), DPA II															
4	Condition ID:	815C2															
5	Condition/Test Date:	Max waste feedrate. June 30 - July 1, 1997															
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	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	Full ND	Full ND
10	Stack Gas Conc (ng/dscm)																
11	2,3,7,8-TCDD	1	nd	7.64E-03	7.64E-03	3.82E-03	3.82E-03	nd	1.56E-02	1.56E-02	7.81E-03	7.81E-03	nd	1.08E-02	1.08E-02	5.41E-03	5.41E-03
12	TCDD Other	0															
13	1,2,3,7,8-PCDD	0.5	nd	1.27E-02	6.36E-03	6.36E-03	3.18E-03	nd	1.82E-02	9.10E-03	9.10E-03	4.55E-03	nd	1.62E-02	8.12E-03	8.12E-03	4.06E-03
14	PCDD Other	0															
15	1,2,3,4,7,8-HxCDD	0.1	nd	1.27E-02	1.27E-03	6.36E-03	6.36E-04	nd	2.34E-02	2.34E-03	1.17E-02	1.17E-03	nd	1.62E-02	1.62E-03	8.12E-03	8.12E-04
16	1,2,3,6,7,8-HxCDD	0.1	nd	1.02E-02	1.02E-03	5.09E-03	5.09E-04		1.30E-02	1.30E-03	1.30E-02	1.30E-03	nd	1.62E-02	1.62E-03	8.12E-03	8.12E-04
17	1,2,3,7,8,9-HxCDD	0.1	nd	1.02E-02	1.02E-03	5.09E-03	5.09E-04		1.04E-02	1.04E-03	1.04E-02	1.04E-03	nd	1.89E-02	1.89E-03	9.47E-03	9.47E-04
18	HxCDD Other	0															
19	1,2,3,4,6,7,8-HpCDD	0.01	nd	2.30E-02	2.30E-04	1.15E-02	1.15E-04	nd	4.94E-02	4.94E-04	2.47E-02	2.47E-04	nd	2.16E-02	2.16E-04	1.08E-02	1.08E-04
20	HpCDD Other	0															
21	OCDD	0.001		3.56E-02	3.56E-05	3.56E-02	3.56E-05		3.90E-02	3.90E-05	3.90E-02	3.90E-05		5.41E-02	5.41E-05	5.41E-02	5.41E-05
22	2,3,7,8-TCDF	0.1	nd	7.64E-03	7.64E-04	3.82E-03	3.82E-04	nd	2.08E-02	2.08E-03	1.04E-02	1.04E-03	nd	2.70E-02	2.70E-03	1.35E-02	1.35E-03
23	TCDF Other	0															
24	1,2,3,7,8-PCDF	0.05	nd	7.36E-03	3.68E-04	3.68E-03	1.84E-04	nd	1.56E-02	7.80E-04	7.80E-03	3.90E-04	nd	1.08E-02	5.42E-04	5.42E-03	2.71E-04
25	2,3,4,7,8-PCDF	0.5	nd	3.56E-02	1.78E-02	1.78E-02	8.91E-03	nd	1.04E-02	5.20E-03	5.20E-03	2.60E-03	nd	1.62E-02	8.12E-03	8.12E-03	4.06E-03
26	PCDF Other	0															
27	1,2,3,4,7,8-HxCDF	0.1	nd	1.78E-02	1.78E-03	8.91E-03	8.91E-04	nd	1.56E-02	1.56E-03	7.81E-03	7.81E-04	nd	1.35E-02	1.35E-03	6.76E-03	6.76E-04
28	1,2,3,6,7,8-HxCDF	0.1	nd	1.02E-02	1.02E-03	5.09E-03	5.09E-04	nd	1.56E-02	1.56E-03	7.81E-03	7.81E-04	nd	1.35E-02	1.35E-03	6.76E-03	6.76E-04
29	2,3,4,6,7,8-HxCDF	0.1	nd	1.78E-02	1.78E-03	8.91E-03	8.91E-04	nd	1.56E-02	1.56E-03	7.81E-03	7.81E-04	nd	1.35E-02	1.35E-03	6.76E-03	6.76E-04
30	1,2,3,7,8,9-HxCDF	0.1	nd	1.02E-02	1.02E-03	5.09E-03	5.09E-04	nd	1.82E-02	1.82E-03	9.11E-03	9.11E-04	nd	1.89E-02	1.89E-03	9.47E-03	9.47E-04
31	HxCDF Other	0															
32	1,2,3,4,6,7,8-HpCDF	0.01		2.29E-02	2.29E-04	2.29E-02	2.29E-04		0.00E+00	0.00E+00	0.00E+00	0.00E+00	nd	0.00E+00	0.00E+00	0.00E+00	0.00E+00
33	1,2,3,4,7,8,9-HpCDF	0.01	nd	1.78E-02	1.78E-04	8.91E-03	8.91E-05	nd	1.56E-02	1.56E-04	7.81E-03	7.81E-05	nd	1.89E-02	1.89E-04	9.47E-03	9.47E-05
34	HpCDF Other	0															
35	OCDF	0.001	nd	7.28E-01	7.28E-04	3.64E-01	3.64E-04		1.93E-01	1.93E-04	1.93E-01	1.93E-04	nd	4.88E-02	4.88E-05	2.44E-02	2.44E-05
36																	
37	Gas sample volume (dscm)				3.93		3.93			3.84		3.84			3.70		3.70
38	O2 (%)				6.90		6.90			5.00		5.00			5.40		5.40
39																	
40	PCDD/PCDF (ng in sample)				0.1700		0.0855			0.1722		0.0911			0.1550		0.0776
41	PCDD/PCDF (ng/dscm @ 7% O2)	99.4			0.0430		0.0216	94.3		0.0392		0.0207	99.9		0.0376		0.0188
42																	
43	TEQ Cond Avg (ng/dscm)	0.0204															