

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	3015
4	EPA ID No.	MOD9857988164
5	Facility Name	ICI Explosives Environmental Company
6	Facility Location	
7	City	Joplin
8	State	Missouri
9	Unit ID Name/No.	ICIEEC Car Bottom Furnace, H-102
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Rotary hearth
	Combustor Characteristics	A gas-fired heater utilizing a mobile floor for ease of charging the furnace. It is used for treatment and decontamination of large, unusual and packaging materials. Max temp expected 1800C
14		
15	Capacity (MMBtu/hr)	3.6
16	Soot Blowing	
17	APCS Detailed Acronym	SD/BH/ABS
18	APCS General Class	FF, LEWS
19	APCS Characteristics	Spray dryer (ME-104) and baghouse (ME-105 A,B,C), absorber
20	Hazardous Wastes	Liq, solid
21	Haz Waste Description	Scrap steel
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	2.00
26	Height (ft)	65
27	Gas Velocity (ft/sec)	42.0
28	Gas Temperature (°F)	310
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	3015C1	
4		
5	Report Name/Date	Test Report for Trial Burn, Vol. 1, February 1996
6	Report Prepare	Midwest Research Institute
7	Testing Firm	ICI Explosives Environmental Company
8	Testing Dates	May 13-15, 1995
9	Cond Dates	May-95
10	Condition Descr	Trial burn, max feedrate
11	Content	PM, HCl/Cl ₂ , DRE

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comme Units		7% O2								
4												
5												
6	3015C1					R1		R2		R3		Cond Avg
7												
8	PM	E1	gr/dscf	y		0.0001		0.0001		0.0005		0.0002
9	CO (RA)	E1	ppmv	y		1.4		1		3.6		2.0
10												
11												
12	HC (RA)		ppm	n		0.7		0.5		0.5		
13	HCl		lb/hr	n	nd	0.004	nd	0.009	nd	0.004		
14	Cl2		lb/hr	n	nd	0.003	nd	0.003	nd	0.003		
15												
16	POHC		Nitroglycerin									
17	POHC Feedrate		lb/hr			0.367		0.367		0.367		
18	Emission Rate	E2	lb/hr		nd	1.30E-06	nd	6.10E-07	nd	7.70E-07		
19	DRE	E2	%			99.99964		99.99983		99.99979		
20												
21	POHC		HCE									
22	POHC Feedrate		lb/hr									
23	Emission Rate	E2	lb/hr		nd	6.6667E-06	nd	6.6667E-06	nd	6.6667E-06		
24	DRE	E2	%			99.99982		99.99983		99.99983		
25												
26	POHC		Naphth									
27	POHC Feedrate		lb/hr									
28	Emission Rate	E2	lb/hr			8.77E-06		5.85E-06		5.78E-06		
29	DRE	E2	%			99.99947		99.99965		99.99965		
30												
31	Sampling Train		PM, HC E1									
32	Stack Gas Flowrate		dscfm			5250		5125		4981		5118.7
33	O2		%			13.2		13.2		13.4		13.3
34	Moisture		%			37.7		37.2		36.9		37.3
35	Temperature		°F			312		309		308		309.7
36												
37	Sampling Train		DRE E2									
38	Stack Gas Flowrate		dscfm			5265.0		5123.7		4982.3		5123.7
39	O2		%									
40	Moisture		%									
41	Temperature		°F									
42												
43	HC (RA)	E1	ppmv	y		0.78		0.56		0.58		0.6
44												
45	HCl	E1	ppmv	y	nd	0.26	nd	0.54	nd	0.29	100	0.4
46	Cl2	E1	ppmv	y	nd	0.09	nd	0.09	nd	0.09	100	0.1
47	Total Chlorine	E1	ppmv	y	100	0.44	100	0.72	100	0.47	100	0.5

	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	
1	Feedstream																											
2																												
3																												
4	3015C1																											
5	Trial burn																											
6	Feedstream Number																											
7	Feed Class																											
8	Feed Class 2																											
9	Feedstream Description																											
10	Feed Rate																											
11	Heating Value																											
12	Chlorine																											
13																												
14	Stack Gas Flowrate																											
15	Oxygen																											
16																												
17	Thermal Feedrate																											
18	Estimated Firing Rate																											
19																												
20	Feedrate M/TEC Calculations																											
21	Chlorine																											

	B	C	D	E	F	G
1	Process Information					
2				R1	R2	R3
3	3015C1					
4						
5	Car Bottom Furnace Exit Temp	F		1057	1123	1082
6	SCC Exitt Temp	F		2024	2026	2026
7	SCC Exit Pressure	in. W.C		-3.1	-2.4	-3.1
8	Quench Water Flow	gpm		11.1	10.8	11.2
9	Spray Dryer Exit Temp	F		378	380	377
10	Spray Dryer Exit Pressure	in. W.C		-7.4	-6.2	-6.7
11	Baghouse Pressure Drop	in. W.C		5.7	5.6	6.1
12	Baghouse Outlet Temp	F		348	345	345
13	Soda Ash Solution Flow	gpm		1.7	1.6	1