

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	333
4	EPA ID No.	ILD098642424
5	Facility Name	TRADE WASTE INCINERATION
6	Facility Location	
7	City	SAUGET
8	State	IL
9	Unit ID Name/No.	UNIT NO. 4
10	Other Sister Facilities	3 other kilns?
11	Number of Sister Facilities	3
12	Combustor Class	Commercial incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Rotary kiln, afterburner, made by PYROX, kiln has 8' diameter, 35' long
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	SD/FF
18	APCS General Class	FF
19	APCS Characteristics	Spray dryer, fabric filter
20	Hazardous Wastes	Liq, sludge, solid
21	Haz Waste Description	
22	Supplemental Fuel	Oil
23		FUEL OIL
24		
25	Stack Characteristics	
26	Diameter (ft)	4.0
27	Height (ft)	101.0
28	Gas Velocity (ft/sec)	17.1
29	Gas Temperature (°F)	360.9
30		
31	Permitting Status	
32	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	333C1	
4		
5	Report Name/Date	Test Report for the RCRA Trial Burn on the TWI Unit 4 Incinerator, Trade Waste Incineration, Sauget, Illinois (ILD 098642424), Prepared by MRI, Project # 9730-M02, September 18, 1992
6	Report Prepare	MRI
7	Testing Firm	MRI
8	Cond Descr	NOMINAL SOLID FEED, NO LIQUID FEED
9	Testing Dates	
10	Cond Dates	Sep-92
11		
12	333C2	
13		
14	Report Name/Date	Test Report for the RCRA Trial Burn on the TWI Unit 4 Incinerator, Trade Waste Incineration, Sauget, Illinois (ILD 098642424), Prepared by MRI, Project # 9730-M02, September 18, 1992
15	Report Prepare	MRI
16	Testing Firm	MRI
17	Cond Descr	INCREASED SOLIDS AND CHLORINE FEEDS
18	Testing Dates	
19	Cond Dates	Sep-92

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Stack Gas Emissions 2													
2														
3														
4	333C1					R1	R2	R3	R4	Cond Avg				
5														
6	PM	E1	gr/dscf	y		0.0046	0.0012	0.0004	0.0015	0.0019				
7	CO (RA)	E1	ppmv	y			7.4	7.4	8.9	7.9				
8	HCl	E1	ppmv	y		52.3	32.7	58.6	49.3	48.2				
9	Cl2	E1	ppmv	y		0.8	0.9	1.0	0.3	0.8				
10	Total Chlorine	E1	ppmv	y		53.9	34.5	60.7	49.8	49.7				
11														
12	Sampling Train	Halogens	E1											
13	Stack Gas Flowrate		dscfm			15092.0	15088.0	15550.0	14898.0					
14	O2		%			11.6	11.6	11.6	11.6					
15	Moisture		%			42.1	41.5	41.6	41.7					
16	Temperature		°F			367.0	367.0	361.0	364.0					
17														
18	Sampling Train	SVOC	E2											
19	Stack Gas Flowrate		dscfm			15649.0	15880.0	16350.0	15610.0					
20	O2		%			11.6	11.6	11.6	11.6					
21	Moisture		%			41.8	42.8	41.4	41.7					
22	Temperature		°F			365.0	366.0	359.0	362.0					
23														
24	Carbontetrachloride	E2	%			99.99943	99.9996	99.99933	99.99967					
25	Hexachloroethane	E2	%			99.99989	100	99.99998	99.99999					
26	Trichlorobenzene	E2	%			99.99998	99.99999	99.99999	99.99995					
27														
28	333C2					R1	R2	R3	R4	Cond Avg				
29														
30	PM	E1	gr/dscf	y		0.0017	0.0027	0.0005	0.0008	0.0014				
31	CO (RA)	E1	ppmv	y		10.5		1.5	1.5	4.5				
32	HCl	E1	ppmv	y		63.5	83.9	72.8	19.2	59.8				
33	Cl2	E1	ppmv	y		0.4	0.3 nd	0.0	0.7	0.3				
34	Total Chlorine	E1	ug/dscm	y		64.2	84.4	72.9	20.5	60.5				
35														
36	Sampling Train	Halogens	E1											
37	Stack Gas Flowrate		dscfm			15496.0	15554.0	15245.0	15664.0					
38	O2		%			11.8	11.6	11.6	11.6					
39	Moisture		%			42.1	42.1	41.6	41.8					
40	Temperature		°F			363.0	354.0	366.0	362.0					
41														
42	Sampling Train	SVOC	E2											
43	Stack Gas Flowrate		dscfm			15657.0	16109.0	16723.0	16423.0					
44	O2		%			11.6	11.6	11.6	11.6					
45	Moisture		%			42.2	41.5	41.1	41.9					
46	Temperature		°F			361.0	354.0	365.0	362.0					
47														
48	Carbontetrachloride	E2	%			99.99964	99.99972	99.9973	99.99973					
49	Hexachloroethane	E2	%			99.99998	99.99989	100	99.99999					
50	Monochlorobenzene	E2	%			99.99959	99.99968	99.9975	99.99974					
51	Trichlorobenzene	E2	%			99.99999	99.99999	100	99.99996					

	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	AD	AE	AF	AG	AH	AI											
1	Feedstream 2																																												
2																																													
3																																													
4	333C1		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3														
5																																													
6	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3		F4		F4		F4														
7	Feed Class		Liq non-HW		Liq non-HW		Liq non-HW		Liq non-HW		Liq HW		Liq HW		Liq HW		Liq HW		Solid non		Solid non-HW		Solid non		Solid non-HW		Solid HW		Solid HW		Solid HW														
8	Feed Class 2																																												
9	Feedstream Description		Aqueous		Aqueous		Aqueous		Aqueous		Organic liq		Organic liq		Organic liq		Organic liq		Lab pack:		Lab packs		Lab pack:		Lab packs		Containerized s		Containerized		Containerize														
10	Feed Rate	lb/hr	1463		2006		1600		1767										229		234		225		262		1728		1708		1680														
11	Heating Value	Btu/lb	789		652		606		430																		2597		976		1028														
12	Chlorine	ppmw	1800		1900		2200		1800																		875		2350		1800														
13																																													
14	Stack Gas Flowrate	dscfm	15092		15088		15550		14898																		15092		15088		15550														
15	Oxygen	%	11.6		11.6		11.6		11.6																		11.6		11.6		11.6														
16																																													
17	<i>Feedrate MTEC Calculations</i>																																												
18	Chlorine	ug/dscm	69485		100594		90143		85016																		39895		105936		77441														
19																																													
20	333C2		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3														
21																																													
22	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3		F4		F4		F4														
23	Feed Class		Liq non-HW		Liq non-HW		Liq non-HW		Liq non-HW		Liq HW		Liq HW		Liq HW		Liq HW		Solid non		Solid non-HW		Solid non		Solid non-HW		Solid HW		Solid HW		Solid HW														
24	Feed Class 2																																												
25	Feedstream Description		Aqueous		Aqueous		Aqueous		Aqueous		Organic liq		Organic liq		Organic liq		Organic liq		Lab pack:		Lab packs		Lab pack:		Lab packs		Containerized s		Containerized		Containerize														
26	Feed Rate	lb/hr	1842		1300		1332		1501		971		960		948		1043		366		473		319		336		2433		2245		2433														
27	Heating Value	Btu/lb	385		409		324		441		13368		13570		14383		13049										45		30		37														
28	Ash	wt %																																											
29	Chlorine	ppmw	2220		2390		2520		2850		7140		4830		4840		5450										80		50		30														
30																																													
31	Stack Gas Flowrate	dscfm	15496		15554		15245		15664		15496		15554		15245		15664		15496		15554		15245		15664		15496		15554		15245														
32	Oxygen	%	11.8		11.6		11.6		11.6		11.8		11.6		11.6		11.6		11.8		11.6		11.6		11.6		11.8		11.6		11.6														
33																																													
34	<i>Feedrate MTEC Calculations</i>																																												
35	Chlorine	ug/dscm	107370		79546		87679		108753		182036		118712		119852		144510		0		0		0		0		5111		2874		1907														

	B	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	
1	Feedstream 2																												
2																													
3																													
4	333C1	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1		
5																													
6	Feedstream Number	F4	F5	F5	F5	F5	F6	F6	F6	F6	F7	F7	F7	F7	F8														
7	Feed Class	Solid HW	Sludge HW	Sludge HW	Sludge HW	Sludge HW	Solid HW	Solid HW	Solid HW	Solid HW	Spike	Spike	Spike	Spike	Spike														
8	Feed Class 2																												
9	Feedstream Description	Containerized solid	Sludge	Sludge	Sludge	Sludge	Bulk solids	Bulk solids	Bulk solids	Bulk solids	CCI4 spike	CCI4 spike	CCI4 spike	CCI4 spike	Trichlorobenz														
10	Feed Rate	1673	981	1194	1082	1190	8274	8151	8079	8037	60	56	59.8	60.5	201														
11	Heating Value	343	13981	9856	11847	12368	369	369	369	369	432	432	432	432	6120														
12	Chlorine	790	3070	3060	1140	710	900	900	900	900	922000	922000	922000	922000	587000														
13																													
14	Stack Gas Flowrate	14898	15092	15088	15550	14898	15092	15088	15550	14898	15092	15088	15550	14898	15092														
15	Oxygen	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6														
16																													
17	Feedrate MTEC Ca																												
18	Chlorine	35328	79466	96430	31588	22584	196485	193615	186204	193342	1459667	1362717	1411952	1490997	3113191														
19																													
20	333C2	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1		
21																													
22	Feedstream Number	F4	F5	F5	F5	F5	F6	F6	F6	F6	F7	F7	F7	F7	F8														
23	Feed Class	Solid HW	Sludge HW	Sludge HW	Sludge HW	Sludge HW	Solid HW	Solid HW	Solid HW	Solid HW	Spike	Spike	Spike	Spike	Spike														
24	Feed Class 2																												
25	Feedstream Description	Containerized solid	Sludge	Sludge	Sludge	Sludge	Bulk solids	Bulk solids	Bulk solids	Bulk solids	CCI4 spike	CCI4 spike	CCI4 spike	CCI4 spike	Trichlorobenz														
26	Feed Rate	2515	1115	1085	989	1038	12072	12176	11954	12282	74.9	76	75.8	75.3	311														
27	Heating Value	54	9054	8735	8948	8949	911	911	595	508	432	432	432	432	6120														
28	Ash																												
29	Chlorine	40	1800	2180	2780	2100	1810	1840	2560	2190	922000	922000	922000	922000	587000														
30																													
31	Stack Gas Flowrate	15664	15496	15554	15245	15664	15496	15554	15245	15664	15496	15554	15245	15664	15496														
32	Oxygen	11.6	11.8	11.6	11.6	11.6	11.8	11.6	11.6	11.6	11.8	11.6	11.6	11.6	11.8														
33																													
34	Feedrate MTEC Ca																												
35	Chlorine	2557	52697	60557	71818	55416	573715	573586	799363	683800	1813224	1793993	1825539	1764987	4793329														

	B	BK	BL	BN	BN	BC	BP	BQ	BR	BS	BT	BU	BV	BV	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI
1	Feedstream 2																									
2																										
3																										
4	333C1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1	
5																										
6	Feedstream Number		F8		F8		F8		F9		F9		F9		F9		F10		F10		F10		F10		F11	
7	Feed Class		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Total	
8	Feed Class 2																								Total	
9	Feedstream Description	Trichlorobenzene	Trichlorobenzene	Trichlorobenzene	Trichlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Total	
10	Feed Rate		209		175		196		169		166		165		164											
11	Heating Value		6120		6120		6120		828		828		828		828											
12	Chlorine		587000		587000		587000		899000		899000		899000		899000											
13																										
14	Stack Gas Flowrate		15088		15550		14898		15092		15088		15550		14898											
15	Oxygen		11.6		11.6		11.6		11.6		11.6		11.6		11.6											
16																										
17	<i>Feedrate MTEC Ca</i>																									
18	Chlorine		3237957		2630656		3075279		4008833		3938714		3798670		3940886											7507786
19																										
20	333C2		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1	
21																										
22	Feedstream Number		F8		F8		F8		F9		F9		F9		F9		F10		F10		F10		F10		F11	
23	Feed Class		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Spike		Total	
24	Feed Class 2																								Total	
25	Feedstream Description	Trichlorobenzene	Trichlorobenzene	Trichlorobenzene	Trichlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Hexachlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Chlorobenzene	Total
26	Feed Rate		270		270		291		246		248		244		251		75.6		76		76.5		75.5			
27	Heating Value		6120		6120		6120		828		828		828		828		11880		11880		11880		11880			
28	Ash																									
29	Chlorine		587000		587000		587000		899000		899000		899000		899000		316000		316000		316000		316000			
30																										
31	Stack Gas Flowrate		15554		15245		15664		15496		15554		15245		15664		15496		15554		15245		15664			
32	Oxygen		11.6		11.6		11.6		11.8		11.6		11.6		11.6		11.8		11.6		11.6		11.6			
33																										
34	<i>Feedrate MTEC Ca</i>																									
35	Chlorine		4057683		4139928		4342569		5806756		5708048		5729813		5736528		627260		614861		631451		606526		12148273	

	B	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CC	CV	CC	CX	CC	CZ	CD	DB	DD	DD	DF	DD	DH	DJ	DL	DN	
1	Feedstream 2																												
2																													
3																													
4	333C1	R2	R3	R4	Cond Avg	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
5																													
6	Feedstream Number	F11	F11	F11	F11																								
7	Feed Class	Total	Total	Total	Total																								
8	Feed Class 2	Total	Total	Total	Total	Non-HW	Non-HW	Non-HW	Non-HW	HW	HW	HW	HW	Spike	Spike	Spike	Spike												
9	Feedstream Description	Total	Total	Total	Total																								
10	Feed Rate																												
11	Heating Value																												
12	Chlorine																												
13																													
14	Stack Gas Flowrate																												
15	Oxygen																												
16																													
17	<i>Feedrate MTEC Ca</i>																												
18	Chlorine	7573084	6825585	7267851	7293577	69485	100594	90143	85016	39895	105936	77441	35328	8581690	8539388	7841279	8507162												
19																													
20	333C2	R2	R3	R4	Cond Avg	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4
21																													
22	Feedstream Number	F11	F11	F11	F11																								
23	Feed Class	Total	Total	Total	Total																								
24	Feed Class 2	Total	Total	Total	Total	Non-HW	Non-HW	Non-HW	Non-HW	HW	HW	HW	HW	Spike	Spike	Spike	Spike												
25	Feedstream Description	Total	Total	Total	Total																								
26	Feed Rate																												
27	Heating Value																												
28	Ash																												
29	Chlorine																												
30																													
31	Stack Gas Flowrate																												
32	Oxygen																												
33																													
34	<i>Feedrate MTEC Ca</i>																												
35	Chlorine	11136321	11573677	11571906	11607544	107370	79546	87679	108753	187146	121586	121758	147067	13040569	12174585	12326730	12450611												

	C	D	E	F	G	H
1	Process Information 2					
2						
3	333C1		R1	R2	R3	R4
4						
5	Kiln Temperature	F	1406	1409	1407	1384
6	Afterburner Temperature	F	1871	1884	1883	1889
7						
8	333C2					
9						
10	Kiln Temperature	F	1400	1400	1441	1444
11	Afterburner Temperature	F	1888	1888	1886	1915