

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	494
4	EPA ID No.	UT5210090002
5	Facility Name	Deseret Army Depot, TOCDF, Department of Army South
6	Facility Location	
7	City	TOOELE
8	State	UT
9	Unit ID Name/No.	METAL PARTS FURNACE
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator, government, DoD Chem Demil
13	Combustor Type	Fixed hearth
14	Combustor Characteristics	Has secondary combustion chamber
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	C/QT/VS/PBS/DM
18	APCS General Class	C, WQ, HEWS, LEWS
19	APCS Characteristics	Cyclone, quench, venturi scrubber, packed bed scrubber, demister
20	Hazardous Wastes	Sludge
21	Haz Waste Description	Nerve agent contaminated metal waste
22	Supplemental Fuel	
23		
24	Stack Characteristics	
25	Diameter (ft)	4.5
26	Height (ft)	100.0
27	Gas Velocity (ft/sec)	3.7
28	Gas Temperature (°F)	229.7
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	494C1	
4		
5	Report Name/Date	Tooele Chemical Agent Disposal Facility (TOCDF), RCRA Agent Trial Burn Report for the Metal Parts Furnace, EG&G Defense Materials, Inc, August 15, 1997
6	Report Prepare	EG&G
7	Testing Firm	TRC Environmental
8	Cond Descr	Trial Burn, DRE FOR AGENT FEED GB
9	Testing Dates	April 4-17, 1997
10	Cond Dates	Apr-97
11		
12	494C50	
13		
14	Report Name/Date	PCDD/PCDF data reported in "Results from the Metals Parts Furnace Performance Standard Demonstration Burn Using Ton Containers with Agent GB Heels," Timothy Booth, Michel Foster, T. Bumann, and C. McBride, 1997 Incineration Conference, Oakland CA, May 12-16, 1997, pp. 677-681
15	Cond Dates	April, 1995
16		
17		from tests in April, May, and June, 1995

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 2											
2												
3												
4	494C1					R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0097		0.0880		0.0080		0.0
7	CO (MHRA)	E1	ppmv	y		12.0		5.0		8.0		8.3
8												
9	HCl	E1	ppmv	y		1.4 nd		0.8 nd		0.8		1.0
10	Total Chlorine	E1	ppmv	y		1.4		0.8		0.8		1.0
11												
12	Aluminum	E2	ug/dscm	y		122.4		90.6		89.3		100.8
13	Antimony	E2	ug/dscm	y		0.5		0.5		0.4		0.5
14	Arsenic	E2	ug/dscm	y		0.5		0.5		0.6		0.5
15	Barium	E2	ug/dscm	y		1.3		0.7		1.9		1.3
16	Beryllium	E2	ug/dscm	y		0.3		0.2		0.2		0.2
17	Boron	E2	ug/dscm	y		16.2		11.2		10.8		12.7
18	Cadmium	E2	ug/dscm	y		1.8		2.2		2.2		2.1
19	Chromium	E2	ug/dscm	y		0.6		1.0		1.4		1.0
20	Cobalt	E2	ug/dscm	y		0.1		0.1		0.1		0.1
21	Copper	E2	ug/dscm	y		3.8		3.6		3.0		3.4
22	Lead	E2	ug/dscm	y		1.7		1.8		1.5		1.7
23	Manganese	E2	ug/dscm	y		27.0		13.5		20.9		20.5
24	Mercury	E2	ug/dscm	y		5.0		4.6		6.1		5.2
25	Nickel	E2	ug/dscm	y		2.8		1.7		1.4		2.0
26	Phosphorus	E2	ug/dscm	y		5896.9		4231.8		3785.5		4638.0
27	Selenium	E2	ug/dscm	y		0.5		0.5		0.4		0.5
28	Silver	E2	ug/dscm	y		2.0		0.3		0.9		1.1
29	Thallium	E2	ug/dscm	y		0.3		0.2		0.2		0.2
30	Tin	E2	ug/dscm	y		8.4		8.5		8.2		8.3
31	Vanadium	E2	ug/dscm	y		1.4		1.2		1.2		1.2
32	Zinc	E2	ug/dscm	y		29.7		22.5		31.7		28.0
33	SVM	E2	ug/dscm	y		3.5		4.0		3.7		3.8
34	LVM	E2	ug/dscm	y		1.4		1.7		2.2		1.8
35												
36	GB Agent	DRE	%			99.9999997		99.99999979		99.99999975		
37												
38	Sampling Train	Particulate	E1									
39	Stack Gas Flowrate		dscfm			5160.0		5125.0		5273.0		
40	O2		%			13.9		12.6		12.8		
41	Moisture		%			43.2		42.7		43.2		
42	Temperature		°F			225.0		225.0		241.0		
43												
44	Sampling Train	Metals	E2									
45	Stack Gas Flowrate		dscfm			4883.0		5115.0		5251.0		
46	O2		%			13.9		12.6		12.8		
47	Moisture		%			44.8		42.8		43.4		
48	Temperature		°F			222.0		225.0		240.0		
49												
50	Sampling Train	Dioxin & Furan	E3									
51	Stack Gas Flowrate		dscfm			4958.0		5061.0		4918.0		
52	O2		%			13.9		12.6		12.8		
53	Moisture		%			42.5		42.4		42.4		
54	Temperature		°F									

B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	Feedstream 2																					
2																						
3																						
4	494C1																					
5																						
6	Feedstream Number																					
7	Feed Class																					
8	Feed Class 2																					
9	Feedstream Description																					
10																						
11	Heating value																					
12	Ash																					
13	Aluminum																					
14	Antimony																					
15	Arsenic																					
16	Barium																					
17	Beryllium																					
18	Boron																					
19	Cadmium																					
20	Chromium																					
21	Cobalt																					
22	Copper																					
23	Lead																					
24	Manganese																					
25	Mercury																					
26	Nickel																					
27	Selenium																					
28	Silver																					
29	Thallium																					
30	Tin																					
31	Vanadium																					
32	Zinc																					
33																						
34	Stack Gas Flowrate																					
35	Oxygen																					
36																						
37	Estimated Firing Rate																					
38																						
39	Feedrate MTEC																					
40	Aluminum																					
41	Antimony																					
42	Arsenic																					
43	Barium																					
44	Beryllium																					
45	Boron																					
46	Cadmium																					
47	Chromium																					
48	Cobalt																					
49	Copper																					
50	Lead																					
51	Manganese																					
52	Mercury																					
53	Nickel																					
54	Selenium																					
55	Silver																					
56	Thallium																					
57	Tin																					
58	Vanadium																					
59	Zinc																					
60																						

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	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
61 SVM		ug/dscm			0	100	81	100	82	2427155	2427155	2060404	2060404	2069032	2069032	2427155	2427155	2060486	2060486	2069114	2069114	2185585	2185585
62 LVM		ug/dscm			0		163	12	243	302315	302315	257877	257877	259064	259064	302315	302315	258040	258040	259307	259307	273221	273221

	C	D	E	F	G
1	Process Information 2				
2					
3	494C1		R1	R2	R3
4					
5	Combustion Temperature	F	2008	2014	2011
6	WS Temperature	F	175	173	171
7	WS Pressure Drop	in H2O	30	30	30

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	494C1													
2														
3	ng/dscm													
4		I-TEF Wt Fact		Total Full ND	Total 1/2 ND	TEQ 1/2 ND		Total Full ND	Total 1/2 ND	TEQ 1/2 ND		Total Full ND	Total 1/2 ND	TEQ 1/2 ND
5	4D 2378	1	0.004	0.002	0.002	0.002	1	0.002	0.001	0.001	1	0.002	0.001	0.001
6	4D Other	0	0.005	0.003	0.000	0.000	1	0.000	0.000	0.000		0.016	0.016	0.000
7	4D Total	0	0.010	0.005	0.000	0.000	1	0.002	0.001	0.000		0.018	0.018	0.000
8	5D 12378	0.5	0.009	0.005	0.002	0.002	1	0.004	0.002	0.001	1	0.011	0.005	0.003
9	5D Other	0	0.005	0.003	0.000	0.000	1	0.000	0.000	0.000	1	0.000	0.000	0.000
10	5D Total	0	0.015	0.007	0.000	0.000	1	0.004	0.002	0.000	1	0.011	0.005	0.000
11	6D 123478	0.1	0.007	0.004	0.000	0.000	1	0.006	0.003	0.000	1	0.007	0.003	0.000
12	6D 123678	0.1	0.007	0.003	0.000	0.000	1	0.006	0.003	0.000	1	0.006	0.003	0.000
13	6D 123789	0.1	0.007	0.004	0.000	0.000	1	0.006	0.003	0.000	1	0.007	0.003	0.000
14	6D Other	0	-0.008	-0.004	0.000	0.000	1	-0.012	-0.006	0.000	1	-0.013	-0.006	0.000
15	6D Total	0	0.013	0.006	0.000	0.000	1	0.006	0.003	0.000	1	0.007	0.003	0.000
16	7D 1234678	0.01	0.005	0.002	0.000	0.000	1	0.003	0.002	0.000	1	0.002	0.001	0.000
17	7D Other	0	0.000	0.000	0.000	0.000	1	0.000	0.000	0.000	1	0.000	0.000	0.000
18	7D Total	0	0.005	0.002	0.000	0.000	1	0.003	0.002	0.000	1	0.002	0.001	0.000
19	8D	0.001	0.015	0.008	0.000	0.000	1	0.008	0.004	0.000	1	0.006	0.003	0.000
20	4F 2378	0.1	0.028	0.028	0.003	0.000	1	0.003	0.001	0.000		0.025	0.025	0.003
21	4F Other	0	0.891	0.891	0.000	0.000		0.021	0.021	0.000		0.812	0.812	0.000
22	4F Total	0	0.919	0.919	0.000	0.000		0.024	0.024	0.000		0.838	0.838	0.000
23	5F 12378	0.05	0.057	0.028	0.001	0.001	1	0.004	0.002	0.000		0.052	0.052	0.003
24	5F 23478	0.5	0.051	0.025	0.013	0.013	1	0.004	0.002	0.001		0.040	0.040	0.020
25	5F Other	0	1.021	1.021	0.000	0.000		0.007	0.007	0.000		1.188	1.188	0.000
26	5F Total	0	1.129	1.129	0.000	0.000		0.016	0.016	0.000		1.280	1.280	0.000
27	6F 123478	0.1	0.227	0.227	0.023	0.023	1	0.010	0.005	0.000		0.119	0.119	0.012
28	6F 123678	0.1	0.064	0.064	0.006	0.006	1	0.004	0.002	0.000		0.043	0.043	0.004
29	6F 123789	0.1	0.003	0.002	0.000	0.000	1	0.009	0.004	0.000	1	0.002	0.001	0.000
30	6F 234678	0.1	0.009	0.005	0.000	0.000	1	0.007	0.004	0.000	1	0.006	0.003	0.000
31	6F Other	0	0.439	0.439	0.000	0.000		-0.014	-0.014	0.000		0.545	0.545	0.000
32	6F Total	0	0.741	0.741	0.000	0.000		0.016	0.016	0.000		0.715	0.715	0.000
33	7F 1234678	0.01	0.135	0.135	0.001	0.001		0.016	0.016	0.000		0.107	0.107	0.001
34	7F 1234789	0.01	0.009	0.005	0.000	0.000	1	0.003	0.002	0.000	1	0.003	0.002	0.000
35	7F Other	0	-0.009	-0.009	0.000	0.000		-0.003	-0.003	0.000		0.009	0.009	0.000
36	7F Total	0	0.136	0.136	0.000	0.000		0.016	0.016	0.000		0.119	0.119	0.000
37	8F	0.001	0.022	0.011	0.000	0.000	1	0.010	0.005	0.000	1	0.011	0.005	0.000
38	Total PCDD/PCDF		3.004	2.965			55.0	0.105	0.088		19.1	3.006	2.988	
39	TEQ		0.074		0.054	98.7		0.012		0.006		0.053		0.047

	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	494C50													
2														
3	ng/dscm	I-TEF												
4		Wt Fact												
5	4D 2378	1												
6	4D Other	0												
7	4D Total	0												
8	5D 12378	0.5												
9	5D Other	0												
10	5D Total	0												
11	6D 123478	0.1												
12	6D 123678	0.1												
13	6D 123789	0.1												
14	6D Other	0												
15	6D Total	0												
16	7D 1234678	0.01												
17	7D Other	0												
18	7D Total	0												
19	8D	0.001												
20	4F 2378	0.1												
21	4F Other	0												
22	4F Total	0												
23	5F 12378	0.05												
24	5F 23478	0.5												
25	5F Other	0												
26	5F Total	0												
27	6F 123478	0.1												
28	6F 123678	0.1												
29	6F 123789	0.1												
30	6F 234678	0.1												
31	6F Other	0												
32	6F Total	0												
33	7F 1234678	0.01												
34	7F 1234789	0.01												
35	7F Other	0												
36	7F Total	0												
37	8F	0.001												
38	Total PCDD/PCDF				0.007									
39	TEQ								0.008					0.008