

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase I ID No.	3025
4	EPA ID No.	TXD000461533
5	Facility Name	Union Carbide
6	Facility Location	
7	City	Texas City
8	State	TX
9	Unit ID Name/No.	VA-5 Polymer Incinerator
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Liquid injection
14	Combustor Characteristics	John Zinc liquid waste incinerator
15	Capacity (MMBtu/hr)	37 (27: waste, 10: fuel gas)
16	Soot Blowing	
17	APCS Detailed Acronym	WQ/HE/DM/ME
18	APCS General Class	WQ, HE
19	APCS Characteristics	Quench pot, air cooled heat exchanger/condenser/demistor, fiberglass filter mist eliminator
20	Hazardous Wastes	Liq
21	Haz Waste Description	Vinyl acetate (VA) polymer residue
22	Supplemental Fuel	Misc fuel
23		Fuel gas
24		
25	Stack Characteristics	
26	Diameter (ft)	1.42
27	Height (ft)	
28	Gas Velocity (ft/sec)	76.0
29	Gas Temperature (°F)	108
30		
31	Permitting Status	RCRA
32	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Condition Description</b>	
2		
3	<b>3025C1</b>	3025C1
4		
5	Report Name/Date	VA-5 Incinerator Trial Burn/Risk Burn Report, February 2000
6	Report Prepare	TRC Environmental Corp
7	Testing Firm	TRC Environmental
8	Testing Dates	November 3, 1999
9	Cond Dates	Nov-99
10	Condition Descr	Trial burn - Max temp
11	Content	PM, CO, Cr6, PSD, feed metals/ash/Cl,
12		
13	<b>3025C2</b>	3025C2
14		
15	Report Name/Date	VA-5 Incinerator Trial Burn/Risk Burn Report, February 2000
16	Report Prepare	TRC Environmental Corp
17	Testing Firm	TRC Environmental
18	Testing Dates	August 17-18, 1999
19	Cond Dates	Aug-99
20	Condition Descr	Trial burn - Min temp
21	Content	DRE, Gas flowrate
22		
23	<b>3025C3</b>	3025C3
24		
25	Report Name/Date	VA-5 Incinerator Trial Burn/Risk Burn Report, February 2000
26	Report Prepare	TRC Environmental Corp
27	Testing Firm	TRC Environmental
28	Testing Dates	August 10-11, 1999
29	Cond Dates	Aug-99
30	Condition Descr	Risk burn
31	Content	CO, PCDD/F,VOC/SVOC, TOC

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions 1</b>											
2												
3		Comments	Units	7% O2								
4												
5												
6	<b>3025C1</b>	Trial burn - Max temp				R1		R2		R3		Cond Avg
7												
8	CO (RA)	E1	ppmv	y		1.71		5.92		16.67		8.1
9	CO (MHRA)		ppmv	y								
10												
11	PM	E1	gr/dscf	y		0.0076		0.0079		0.009		0.0082
12												
13	Chromium (Hex)		ug/dscm	n		4.4		3.5		4.3		
14	Chromium (Hex)	E2	ug/dscm	y		5.4		4.2		5.2		4.9
15												
16	Sampling Train	PM	E1									
17	Stack Gas Flowrate		dscfm			6048		6245		6230		6174
18	O2		%			9.5		9.5		9.5		9.5
19	Moisture		%			8.1		8.3		7.8		8
20	Temperature		°F			107		109		108		108
21												
22	Sampling Train	Cr+6	E2									
23	Stack Gas Flowrate		dscfm			6317		6515		6389		6407.0
24	O2		%			9.5		9.5		9.5		9.5
25	Moisture		%			8.9		8.4		8.7		8.7
26	Temperature		°F			112		113		112		112.3
27												
28												
29	<b>3025C2</b>	Trial burn - Min temp				R1		R2		R3		Cond Avg
30												
31	CO (RA)	E1	ppmv	y		0.79		4.21		0.69		1.9
32												
33												
34	POHC	Monochlorobenzene										
35	POHC Feedrate		g/hr			907		907		907		
36	Emission Rate	E1	g/hr		nd	1.51E-02	nd	1.59E-02	nd	1.47E-02		
37	DRE	E1	%		>	99.9983	>	99.9982	>	99.9984		
38												
39	POHC	Toluene										
40	POHC Feedrate		g/hr			3621		3630		3630		
41	Emission Rate	E1	g/hr		nd	1.78E-02	nd	5.79E-02	nd	1.94E-02		
42	DRE	E1	%		>	99.9995	>	99.9984	>	99.9995		
43												
44	Sampling Train	DRE	E1									
45	Stack Gas Flowrate		dscfm			6153		5940		5985		6026.0
46	O2		%			10.25		10.55		10.43		10.4
47	Moisture		%			26.5		24.5		25.6		25.5
48	Temperature		°F			155		151		154		153.3
49												
50												
51	<b>3025C3</b>	Risk burn				R1		R2		R3		Cond Avg
52												
53	CO (RA)	E1	ppmv	y		0.7		16.1		13.1		10
54												
55	Sampling Train	PCDD/F	E1									
56	Stack Gas Flowrate		dscfm			5773		5754		5735		5754.0
57	O2		%			9.28		9.08		9.28		9.2
58	Moisture		%			23.65		23.8		24.8		24.1
59	Temperature		°F			149		149		151		149.7

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
1	Feedstream 1																											
3	3025C1	Trial burn	7%O2																									
5	Feedstream Number																											
6	Feed Class																											
7	Feed Class 2																											
8	Feedstream Description																											
9	Feed Rate	g/hr																										
10	Ash	g/hr																										
11	Chlorine	g/hr																										
12	Antimony	g/hr																										
13	Arsenic	g/hr																										
14	Barium	g/hr																										
15	Beryllium	g/hr																										
16	Cadmium	g/hr																										
17	Chromium	g/hr																										
18	Lead	g/hr																										
19	Mercury	g/hr																										
20	Nickel	g/hr																										
21	Selenium	g/hr																										
22	Silver	g/hr																										
23	Thallium	g/hr																										
24	Zinc	g/hr																										
26	Stack Gas Flowrate	dscfm																										
27	Oxygen	%																										
29	Feedrate MTEC Calculations																											
30	Ash	mg/dscm	y																									
31	Chlorine	ug/dscm	y																									
32	Antimony	ug/dscm	y																									
33	Arsenic	ug/dscm	y																									
34	Barium	ug/dscm	y																									
35	Beryllium	ug/dscm	y																									
36	Cadmium	ug/dscm	y																									
37	Chromium	ug/dscm	y																									
38	Lead	ug/dscm	y																									
39	Mercury	ug/dscm	y																									
40	Nickel	ug/dscm	y																									
41	Selenium	ug/dscm	y																									
42	Silver	ug/dscm	y																									
43	Thallium	ug/dscm	y																									
44	Zinc	ug/dscm	y																									
45																												
46	SVM	ug/dscm	y																									
47	LVM	ug/dscm	y																									
48																												
49																												
50	3025C3	Risk burn																										
51	Feedstream Number																											
52	Feed Class																											
53	Feedstream Description																											
54	Feed Rate	lb/hr																										
55	Heating Value	Btu/lb																										
56	Thermal Feedrate	MMBtu/hr																										
57																												

	B	C	D	E
1	<b>Process Information</b>			
2				
3	<b>3025C1</b>		Trial burn - Max temp	Cond Avg
4				
5	Comb Chamb Temp	C		1247
6	Fuel gas feed	lb/hr		334
7	Comb gas vel indicator	scfm		6085
8	Mist eliminator (plume filter) Pressure	in H2O		15
9				
10	<b>3025C2</b>		Trial burn - Min temp	Cond Avg
11				
12	Comb Chamb Temp	C		1131
13	Fuel gas feed	lb/hr		88.4
14	Comb gas vel indicator	scfm		6026
15	Mist eliminator (plume filter) Pressure	in H2O		11.5
16				
17	<b>3025C3</b>		Risk burn	Cond Avg
18				
19	Comb Chamb Temp	C		1198
20	Fuel gas feed	lb/hr		52.4
21	Comb gas vel indicator	scfm		5753
22	Mist eliminator (plume filter) Pressure	in H2O		9.4

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<b>PCDD/PCDF</b>																
2	N																
3	Facility Name and ID:	TOCDF, MPF															
4	Condition ID:	3025C3		Risk burn													
5	Condition/Test Date:	Risk burn, Aug 10-11, 1999															
6																	
7																	
8																	
9																	
10																	
11	Detected in sample volume (pg)																
12	2,3,7,8-TCDD	1	nd	4.3	4.30	2.15	2.15	nd	17	17.00	8.50	8.50	nd	5.6	6	3	3
13	Total TCDD	0															
14	1,2,3,7,8-PCDD	0.5	nd	5.7	2.85	2.85	1.43	nd	3.8	1.90	1.90	0.95	nd	8.4	4	4	2
15	Total PCDD	0															
16	1,2,3,4,7,8-HxCDD	0.1	nd	4.8	0.48	2.40	0.24	nd	6.1	0.61	3.05	0.31	nd	7.3	1	4	0
17	1,2,3,6,7,8-HxCDD	0.1	nd	3.8	0.38	1.90	0.19	nd	4.8	0.48	2.40	0.24	nd	5.8	1	3	0
18	1,2,3,7,8,9-HxCDD	0.1	nd	4.3	0.43	2.15	0.22	nd	5.4	0.54	2.70	0.27	nd	6.5	1	3	0
19	Total HxCDD	0															
20	1,2,3,4,6,7,8-HpCDD	0.01		12	0.12	12.00	0.12		16	0.16	16.00	0.16		14	0	14	0
21	Total HpCDD	0															
22	OCDD	0.001		42	0.04	42.00	0.04		81	0.08	81	0.08		95	0	95	0
23	2,3,7,8-TCDF	0.1	nd	4	0.40	2.00	0.20	nd	14	1.40	7	0.70	nd	6.5	1	3	0
24	Total TCDF	0															
25	1,2,3,7,8-PCDF	0.05	nd	3.9	0	2	0	nd	3.8	0.19	2	0.10	nd	6.2	0	3	0
26	2,3,4,7,8-PCDF	0.5	nd	3.9	2	2	1	nd	3.9	1.95	2	0.98	nd	6.3	3	3	2
27	Total PCDF	0															
28	1,2,3,4,7,8-HxCDF	0.1	nd	2.8	0	1	0	nd	3.1	0.31	2	0.16	nd	4.8	0	2	0
29	1,2,3,6,7,8-HxCDF	0.1	nd	2.3	0	1	0	nd	2.5	0.25	1	0.13	nd	3.9	0	2	0
30	2,3,4,6,7,8-HxCDF	0.1	nd	3.1	0	2	0	nd	3.4	0.34	2	0.17	nd	5.3	1	3	0
31	1,2,3,7,8,9-HxCDF	0.1	nd	3.1	0	2	0	nd	3.4	0.34	2	0.17	nd	5.3	1	3	0
32	Total HxCDF	0															
33	1,2,3,4,6,7,8-HpCDF	0.01	nd	7.7	0	4	0	nd	12	0.12	6	0.06	nd	8	0	4	0
34	1,2,3,4,7,8,9-HpCDF	0.01	nd	8.9	0	4	0	nd	14	0.14	7	0.07	nd	9.3	0	5	0
35	Total HpCDF	0															
36	OCDF	0.001		7.4	0	7	0	nd	40	0.04	20	0.02	nd	17	0	9	0
37	Gas sample volume (dscl)				169.59	169.59	169.59			171.361	171.361	171.361			171.405	171.405	171.405
38	O2 (%)				9.28	9.28	9.28			9.08	9.08	9.08			9.28	9.28	9.28
39																	
40	PCDD/PCDF (ng in sample)				0.012		0.006			0.026		0.013			0.02		0.01
41	PCDD/PCDF (ng/dscm @ 7% O2)				0.0031		0.0016			0.0063		0.0032			0.0045		0.0023
42																	
43	TEQ Cond Avg																
44	Total Cond Avg																
45																	
46	<b>Total value can not be calculated</b>																