

	B	C
1	<b>Source Description</b>	
2		
3	Phase I ID No.	3006
4	EPA ID No.	WVD004325353
5	Facility Name	Crompton Corp OSi Group
6	Facility Location	
7	City	Friendly
8	State	WV
9	Unit ID Name/No.	
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Rotary kiln
15		
16	Capacity (MMBtu/hr)	
17	Soot Blowing	
18	APCS Detailed Acronym	Q/CCS/CFS/IWS
19	APCS General Class	IWS, LEWS
20	APCS Characteristics	Quench, counter-current scrubber, two cross flow scrubbers, three stage ionizing wet scrubber
21	Hazardous Wastes	Liq, solid
22	Haz Waste Description	Solvents, spiked in SiCl4
23	Supplemental Fuel	
24		
25	Stack Characteristics	
26	Diameter (ft)	
27	Height (ft)	
28	Gas Velocity (ft/sec)	
29	Gas Temperature (°F)	
30		
31	Permitting Status	
32	HWC Burn Status (Date if Terminated)	
33		
34		
35	Notes:	
36		
37	Hope to show compliance with MACT alternative PM standard	
38	Expect to reduce HCl/Cl2 to MACT levels with operational / equipment changes	
39	Metals and D/F results used for compliance until MACT rule is in effect	
40	Wet scrubbers all operated with liquor pH << 7 very acidic, no wonder not capturing any Cl2	

	B	C
1	<b>Condition Description</b>	
2		
3	<b>3006C1</b>	
4		
5	Report Name/Date	Miniburn Test Report, May 2001
6	Report Prepare	Franklin Engineering Group
7	Testing Firm	DEECO, Inc.
8	Testing Dates	January 25-26, 2001
9	Cond Dates	Jan-01
10	Condition Descr	Worst case mini-burn to demo compliance with HWC MACT stnds
11	Content	PM, HCl/Cl <sub>2</sub> , D/F, CO, Cr, Pb, Ni

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2												
3		Comment	Units	7% O2								
4												
5												
6	<b>3006C1</b>	<b>Trial Burn</b>				R1		R2		R3		Cond Avg
7												
8	CO (RA)	E1	ppmv	y		11		10		10.6		10.5
9												
10	PM	E1	gr/dscf	y		0.0196		0.0172		0.0154		0.0174
11												
12	HCl	E1	ppmv	y		11.3		10.3		4.7		8.8
13	Cl2	E1	ppmv	y		103.2		69.7		64.3		79.1
14	Total Chlorine	E1	ppmv	y		217.7		149.7		133.3		166.9
15												
16	Chromium	E2	ug/dscm	y		3.83		4.72		7.53		5.4
17	Lead	E2	ug/dscm	y		6.66		14.3		28.1		16.4
18	Nickel	E2	ug/dscm	y		10.4		17		22.2		16.5
19												
20	SVM	E2	ug/dscm	y		6.66		14.3		28.1		16.4
21	LVM	E2	ug/dscm	y		3.83		4.72		7.53		5.4
22												
23	Sampling Train	PM, HCl/(E1										
24	Stack Gas Flowrate		dscfm			14400		14200		14400		14333.3
25	O2		%			15.1		14.9		15.1		15.0
26	Moisture		%			1.6		1.5		1.4		1.5
27	Temperature		°F			60.5		61.6		57.1		59.7
28												
29	Sampling Train	Metals	E2									
30	Stack Gas Flowrate		dscfm			14400		14800		14400		14533.3
31	O2		%			15.1		15		15.1		15.1
32	Moisture		%			1.5		1.3		1.2		1.3
33	Temperature		°F			57.8		57.4		55.9		57.0

	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	AAA	AB	AC			
1	Feedstream																														
2																															
3																															
4	3006C1	Trial burn		R1	R2	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3		
5	6	Feedstream Number		F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1		
6	7	Feed Class		Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW	Liq HW		
7	8	Feed Class 2		Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents	Solvents		
8	9	Feedstream Description		gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm	gpm		
9	10	Feed Rate		4.5	4.3	3.8	3.8	4.20	4.20	1.74	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69		
10	11	Heating Value		11301	11888.5	12857	12857	12015.50	12015.50	3321	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552	2552		
11	12	Specific Gravity		0.809	0.809	0.82	0.82	0.81	0.81	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48		
12	13	Ash	%	0.12	0.57	0.81	0.81	0.50	0.50	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3		
13	14	Chlorine	%	0.35	0.38	0.11	0.11	0.28	0.28	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5		
14	15	Chromium	ppmw	1.05	1.05	1.05	1.05	1.05	1.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
15	16	Lead	ppmw	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
16	17	Nickel	ppmw	13	16	4.8	4.8	11.27	11.27	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42		
17	18																														
18	19	Stack Gas Flowrate	dscfm	14400.0	14200.0	14400.0	14400.0	14333.3	14333.3	14400	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200		
19	20	Oxygen	%	15.1	14.9	15.1	15.1	15.0	15.0	15.1	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	
20	21																														
21	22	Feedrate MTEC Calculations																													
22	23	Ash	mg/dscm	96.1	427.8	555.1	555.1	372.9	372.9	19993.6	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	19047.0	
23	24	Chlorine	ug/dscm	280243	285170	75387	75387	208815	208815	47293746	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	45054430	
24	25	Chromium	ug/dscm	84.1	78.8	72.0	72.0	78.3	78.3	59.5	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	
25	26	Lead	ug/dscm	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
26	27	Nickel	ug/dscm	1040.9	1200.7	329.0	329.0	840.2	840.2	80.4	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	
27	28																														
28	29	SVM	ug/dscm	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
29	30	LVM	ug/dscm	84.1	78.8	72.0	72.0	78.3	78.3	59.5	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1	Feedstream															
2																
3																
4	3006C1	R1	R2	R3	Cond Avg	R1	R2	R3	F4	F4	F4	F4	F4	F4	Cond Avg	
5	Feedstream Number	F3	F3	F3	F3	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
6	Feed Class	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
7	Feed Class 2	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
8	Feedstream Description	Metal Spike	Metal Spike	Metal Spike	Metal Spike	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
9	Feed Rate	0.57	0.60	0.82	0.66											
10	Heating Value	4471.00	4175.00	3712.00	4119.33											
11	Specific Gravity	1.06	1.06	1.06	1.06											
12	Ash	2.57	3.61	1.66	2.61											
13	Chlorine	0.18	0.27	0.03	0.16											
14	Chromium	438.70	450.90	441.80	443.80											
15	Lead	475.10	478.20	462.30	471.87											
16	Nickel	501.20	504.90	489.30	498.47											
17	Stack Gas Flowrate	14400	14200	14400.0	14333.3											
18	Oxygen	15.1	14.9	15.1	15.0											
19																
20																
21																
22	Feedrate MTEC Calculation															
23	Ash	341.5	495.3	317.3	401.5	20431.3	19970.0	14431.4	18277.5	18277.5	18277.5	18277.5	18277.5	18277.5	18277.5	18277.5
24	Chlorine	23920	37044	5735	24581	47597909	45376644	32153892	41709482	41709482	41709482	41709482	41709482	41709482	41709482	41709482
25	Chromium	5829.8	6186.4	8446.0	6818.2	5973.4	6321.9	8558.3	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2
26	Lead	6313.5	6561.0	8837.9	7249.3	6314.9	6562.3	8839.0	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7
27	Nickel	6660.4	6927.3	9354.1	7658.0	7781.7	8204.7	9737.6	8574.6	8574.6	8574.6	8574.6	8574.6	8574.6	8574.6	8574.6
28																
29	SVM	6313.5	6561.0	8837.9	7249.3	6314.9	6562.3	8839.0	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7	7238.7
30	LVM	5829.8	6186.4	8446.0	6818.2	5973.4	6321.9	8558.3	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2	6951.2

	B	C	D	E	F	G
1	<b>Process Information</b>					
2						
3	<b>3006C1</b>		R1	R2	R3	Cond Avg
4						
5	Kiln Temperature	F	1645	1670	1650	1655
6	IWS Voltage (total to 3 stages)	kV	56.3	55.9	55.6	
7	CCS Liquor pH		2.5-6	2.1-6	2.3-2.3	
8	CFS No. 1 Liquor pH		3.2-1.6	1.6-1.5	1.6-1.4	
9	CFS No. 2 Liquor pH		4.6-2.3	2.4-2.3	2.3-2.3	
10	IWS No. 1 Liquor pH		2.5-2.3	2.1-2.4	2.0-1.8	
11	IWS No. 2 Liquor pH		2.7-2.5	2.4-2.5	2.1-2.1	
12	IWS No. 3 Liquor pH		5.6-5.7	5.3-6	5.7-5.5	

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:																
4	Condition ID:																
5	Condition/Test Date:																
6																	
7																	
8																	
9																	
10	Detected in sample volume (pg)																
11	2,3,7,8-TCDD	1	nd	0.839	0.839	0.420	0.420	nd	0.539	0.539	0.270	0.270	0.270	1.260	1.260	1.260	1.260
12	Total TCDD	0		16.300	0.000	16.300	0.000	0.000	3.430	0.000	3.430	0.000	0.000	2.720	0.000	2.720	0.000
13	1,2,3,7,8-PCDD	0.5	nd	1.070	0.535	0.535	0.268	nd	1.100	0.550	0.550	0.275	nd	0.699	0.350	0.350	0.175
14	Total PCDD	0		8.510	0.000	8.510	0.000	0.000	0.000	0.000	0.510	0.510	0.510	1.690	0.000	1.690	0.000
15	1,2,3,4,7,8-HxCDD	0.1	nd	1.880	0.188	0.940	0.094	nd	1.020	0.102	0.510	0.051	nd	4.410	0.441	2.205	0.221
16	1,2,3,6,7,8-HxCDD	0.1	nd	2.100	0.210	1.050	0.105	nd	1.140	0.114	0.570	0.057	nd	4.910	0.491	2.455	0.246
17	1,2,3,7,8,9-HxCDD	0.1	nd	1.880	0.188	0.940	0.094	nd	1.020	0.102	0.510	0.051	nd	4.400	0.440	2.200	0.220
18	Total HxCDD	0		3.310	0.000	3.310	0.000	0.000	0.000	0.000	2.320	0.023	0.023	3.570	0.036	3.570	0.036
19	1,2,3,4,6,7,8-HpCDD	0.01		7.320	0.073	7.320	0.073	0.000	4.390	0.000	4.390	0.000	0.000	6.410	0.000	6.410	0.000
20	Total HpCDD	0		12.900	0.000	12.900	0.000	0.000	8.930	0.009	8.930	0.009	0.009	16.400	0.016	16.400	0.016
21	OCDD	0.001		28.800	0.029	28.800	0.029	0.000	1.220	0.122	0.610	0.061	0.061	4.360	0.436	4.360	0.436
22	2,3,7,8-TCDF	0.1		3.680	0.368	3.680	0.368	nd	4.930	0.000	4.930	0.000	0.000	26.600	0.000	26.600	0.000
23	Total TCDF	0		39.100	0.000	39.100	0.000	0.000	1.190	0.060	0.595	0.030	nd	1.290	0.065	0.645	0.032
24	1,2,3,7,8-PCDF	0.05		2.030	0.102	2.030	0.102	nd	1.180	0.090	0.590	0.295	nd	1.270	0.635	0.635	0.318
25	2,3,4,7,8-PCDF	0.5		2.480	1.240	2.480	1.240	nd	0.000	0.000	2.120	0.212	0.212	2.180	0.218	2.180	0.218
26	Total PCDF	0		21.300	0.000	21.300	0.000	0.000	0.563	0.056	0.282	0.028	0.028	1.020	0.102	1.020	0.102
27	1,2,3,4,7,8-HxCDF	0.1		3.760	0.376	3.760	0.376	nd	0.599	0.060	0.300	0.030	0.030	1.180	0.118	1.180	0.118
28	1,2,3,6,7,8-HxCDF	0.1		2.360	0.236	2.360	0.236	nd	0.685	0.069	0.343	0.034	nd	0.349	0.035	0.175	0.017
29	2,3,4,6,7,8-HxCDF	0.1		2.470	0.247	2.470	0.247	nd	2.120	0.000	2.120	0.000	0.000	4.370	0.000	4.370	0.000
30	1,2,3,7,8,9-HxCDF	0.1	nd	0.431	0.043	0.216	0.022	nd	1.960	0.020	1.960	0.020	0.020	3.760	0.038	3.760	0.038
31	Total HxCDF	0		18.500	0.000	18.500	0.000	0.000	0.943	0.009	0.472	0.005	nd	0.634	0.006	0.317	0.003
32	1,2,3,4,6,7,8-HpCDF	0.01		8.230	0.082	8.230	0.082	nd	1.960	0.000	1.960	0.000	0.000	3.760	0.000	3.760	0.000
33	1,2,3,4,7,8,9-HpCDF	0.01	nd	1.300	0.013	0.650	0.007	nd	5.480	0.005	2.740	0.003	0.003	5.410	0.005	5.410	0.005
34	Total HpCDF	0		10.100	0.000	10.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	OCDF	0.001		7.500	0.008	7.500	0.008	nd	175.34	175.34	172.99	172.99	172.99	171.642	171.642	171.642	171.642
36																	
37	Gas sample volume (dscf)				175.34	175.34	175.34		172.99	172.99	172.99	172.99	172.99	171.642	171.642	171.642	171.642
38	O2 (%)				14.9	14.9	14.9		15.1	15.1	15.1	15.1	15.1	15.2	15.2	15.2	15.2
39																	
40	PCDD/PCDF (ng in sample)				0.005	0.2	0.004		0.003	0.003	0.0	0.001	0.001	0.0	0.0	0.1	0.00
41	PCDD/PCDF (ng/dscm @ 7% O2, 42.2				0.0022	0.0769	0.0017	90.0	0.0013	0.0013	0.0138	0.0007	52.5	0.0023	0.0023	0.0358	0.0017
42																	
43	TEQ Cond Avg				0.0014												
44	Total Cond Avg				0.0422												