

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase II ID No.	828
4	EPA ID No.	LAD020597597
5	Facility Name	Angus Chemical Company
6	Facility Location	
7	City	Sterlington
8	State	LA
9	Unit ID Name/No.	No. 7 Boiler
10	Other Sister Facilities	No. 4 Boiler (Burns waste when No. 7 is down (2-6 wks per year))
11	Number of Sister Facilities	0
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid-fired
	Combustor Characteristics	Watertube boiler. Riley Stoker, water tube, forced draft, with superheater and air preheater, built in 1954, steam generating capacity of 110,000 lb/hr (605 psig @ 750°F)
14		
15	Capacity (MMBtu/hr)	150
16	Soot Blowing	
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	NA
20	Hazardous Wastes	Liq
	Haz Waste Description	Liquid NP nitrogenated heads (D001/D002) produced from nitroparaffins
21		
22	Supplemental Fuel	Natural gas, misc. fuel
23		hydrogen
24	Stack Characteristics	
25	Diameter (ft)	7.3
26	Height (ft)	41
27	Gas Velocity (ft/sec)	15.9
28	Gas Temperature (°F)	400
29		
30	Permitting Status	Low Risk Waste Exemption; Tier IA for all metals
	HWC Burn Status (Date if Terminated)	
31		

	B	C
1	Cond Description	
2		
3	828C1	
4		
5	Report Name/Date	Risk Burn Report, No. 7 Boiler, March 1998
6	Report Prepar	Angus Chemical, Regulatory Affairs
7	Testing Firm	METCO
8	Testing Dates	April 1-3, 1997
9	Cond Dates	Apr-97
10	Cond Description	Risk burn -- normal conditions
	Content	Stack testing: D/F, PM, PM PSD, HCl/Cl2, CO, VOC/SVOC; No stack testing for metals (has Tier IA limits and metals feeds) or DRE
11		

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comments	Units	7% O2								
4												
5												
6	828C1	Risk burn normal conditions				R1	R2	R3		Cond Avg		
7												
8	PM	E1	gr/dscf	y		0.0013	0.0008	0.0004		0.0008		
9	CO (RA)	E1	ppmv	y		6.9	8.2	3.6		6.2		
10	HCl	E1	ppmv	y		0.05	0.04	0.04		0.04		
11	Cl2	E1	ppmv	y		0.01	0.01	0.01		0.01		
12	Total Chlorine	E1	ppmv	y		0.07	0.06	0.06		0.06		
13												
14	Sampling Train	PM, HCl/Cl2	E1									
15	Stack Gas Flowrate		dscfm			13186	13258	14829		13757.7		
16	O2		%			7	6.4	7		6.8		
17	Moisture		%			13.65	13.56	14.21		13.8		
18	Temperature		°F			351	351	369		356.7		
19												
20	Sampling Train	PCDD/PCDF, SVOC	E2									
21	Stack Gas Flowrate		dscfm			13267	13534	13942		13581.0		
22	O2		%			7	6.7	7		6.9		
23	Moisture		%			14.28	13.47	13.64		13.8		
24	Temperature		°F			351	352	360		354.2		
25												
26	Particle Size Distribution in microns											
27												
28	<1		% wt			34.4	44.8	23.1				
29	1-2 um		% wt			13.7	10.3	7.9				
30	2-10 um		% wt			38.3	20.8	54.6				
31	>10		% wt			13.7	24.1	14.5				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Feedstreams																		
2																			
3																			
4	828C1																		
5																			
6	Feedstream Number																		
7	Feed Class																		
8	Feed Class 2																		
9	Feedstream Description																		
10	Feed Rate	gpm																	
11	Specific Gravity																		
12	Feed Rate	lb/min																	
13	Heating Value	Btu/lb																	
14	Viscosity	SUS																	
15	Sulfur	%																	
16	Ash	%																	
17	Chlorine	µg/mL																	
18	Mercury	ppmw																	
19	Lead	ppmw																	
20	Cadmium	ppmw																	
21	Arsenic	ppmw																	
22	Beryllium	ppmw																	
23	Chromium	ppmw																	
24	Nickel	ppmw																	
25	Antimony	ppmw																	
26	Selenium	ppmw																	
27	Manganese	ppmw																	
28																			
29	Stack Gas Flowrate	dscfm																	
30	O2	%																	
31																			
32	Thermal Feedrate	MMBtu/hr																	
33	Estimated Firing Rate	MMBtu/hr																	
34																			
35	<i>Feedrate MTEC Calculations</i>																		
36	Ash	mg/dscm																	
37	Ash	gr/dscf																	
38	Chlorine	µg/dscm																	
39	Mercury	µg/dscm																	
40	Lead	µg/dscm																	
41	Cadmium	µg/dscm																	
42	Arsenic	µg/dscm																	
43	Beryllium	µg/dscm																	
44	Chromium	µg/dscm																	
45	Nickel	µg/dscm																	
46	Antimony	µg/dscm																	
47	Selenium	µg/dscm																	
48	Manganese	µg/dscm																	
49																			
50	SVM	µg/dscm																	
51	LVM	µg/dscm																	
52																			
53	BIF Feedrate Limits																		
54																			
55	Chlorine	g/hr																	
56	Mercury	g/hr																	
57	Lead	g/hr																	
58	Cadmium	g/hr																	

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
59	Arsenic		g/hr			2.9													
60	Beryllium		g/hr			5.4													
61	Chromium		g/hr			1.1													
62	Nickel		g/hr			53.5													
63	Antimony		g/hr			381													
64	Selenium		g/hr			5091													

	A	B	C	D	E	F
1	Process Information					
2						
3		Units	Run	Run	Run	Avg
4			1	2	3	
5						
6	828C1					
7						
8	Steam Production Rate	lb/hr	81300	81900	82100	81767
9	Boiler Temperatures					
10	Preheater Entrance Temp	°F	604	602	607	604
11	Preheater Exit Temp	°F	375	378	384	379

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	PCDD/PCDF																
2	N																
3	Facility Name and ID:	Angus Chem. Co															
4	Condition ID:	828C1															
5	Condition/Test Date:	Risk burn normal condition. April 1-3, 1997															
6																	
7		I-TEF															
8		Wght Fact															
9																	
10		Detected in sample volume (ng)															
11		2,3,7,8-TCDD	1	0.025	0.0250	0.025	0.0250	0.0300	0.0300	0.0300	0.0300	0.0300	nd	0.030	0.0300	0.0150	0.0150
12		TCDD Other	0														
13		1,2,3,7,8-PCDD	0.5	0.15	0.0750	0.150	0.0750	0.0700	0.0700	0.0700	0.1400	0.0700		0.150	0.0750	0.1500	0.0750
14		PCDD Other	0														
15		1,2,3,4,7,8-HxCDD	0.1	0.140	0.0140	0.140	0.0140	0.0130	0.0130	0.0130	0.1300	0.0130		0.140	0.0140	0.1400	0.0140
16		1,2,3,6,7,8-HxCDD	0.1	0.170	0.0170	0.170	0.0170	0.0170	0.0170	0.0170	0.1700	0.0170		0.130	0.0130	0.1300	0.0130
17		1,2,3,7,8,9-HxCDD	0.1	0.115	0.0115	0.115	0.0115	0.0115	0.0115	0.0115	0.1500	0.0115		0.170	0.0170	0.1700	0.0170
18		HxCDD Other	0														
19		1,2,3,4,6,7,8-HpCDD	0.01	0.28	0.0028	0.280	0.0028	0.0019	0.0019	0.0019	0.1900	0.0019		0.200	0.0020	0.2000	0.0020
20		HpCDD Other	0														
21		OCDD	0.001	0.49	0.0005	0.490	0.0005	0.0003	0.0003	0.0003	0.2500	0.0003	nd	0.400	0.0004	0.2000	0.0002
22		2,3,7,8-TCDF	0.1	0.05	0.0045	0.045	0.0045	0.0045	0.0045	0.0045	0.0500	0.0025		0.020	0.0020	0.0200	0.0020
23		TCDF Other	0														
24		1,2,3,7,8-PCDF	0.05	0.17	0.0085	0.170	0.0085	0.0085	0.0085	0.0085	0.1700	0.0085		0.160	0.0080	0.1600	0.0080
25		2,3,4,7,8-PCDF	0.5	0.16	0.0800	0.160	0.0800	0.0750	0.0750	0.0750	0.1500	0.0750		0.150	0.0750	0.1500	0.0750
26		PCDF Other	0														
27		1,2,3,4,7,8-HxCDF	0.1	0.29	0.0290	0.290	0.0290	0.0220	0.0220	0.0220	0.2200	0.0220		0.260	0.0260	0.2600	0.0260
28		1,2,3,6,7,8-HxCDF	0.1	0.22	0.0220	0.220	0.0220	0.0180	0.0180	0.0180	0.1800	0.0180		0.200	0.0200	0.2000	0.0200
29		2,3,4,6,7,8-HxCDF	0.1	0.165	0.0165	0.165	0.0165	0.0190	0.0190	0.0190	0.1900	0.0190		0.200	0.0200	0.2000	0.0200
30		1,2,3,7,8,9-HxCDF	0.1	0.180	0.0180	0.180	0.0180	0.0170	0.0170	0.0170	0.1700	0.0170		0.115	0.0115	0.1150	0.0115
31		HxCDF Other	0														
32		1,2,3,4,6,7,8-HpCDF	0.01	0.58	0.0058	0.580	0.0058	0.0036	0.0036	0.0036	0.3550	0.0036		0.400	0.0040	0.4000	0.0040
33		1,2,3,4,7,8,9-HpCDF	0.01	0.43	0.0043	0.430	0.0043	0.0030	0.0030	0.0030	0.3000	0.0030		0.270	0.0027	0.2700	0.0027
34		HpCDF Other	0														
35		OCDF	0.001	2.34	0.0023	2.340	0.0023	1.65	1.65	1.65	1.65	0.0017		0.945	0.0009	0.9450	0.0009
36																	
37		Gas sample volume (dscf)		118.00	118.00	118.00	118.00	120.70	120.70	120.70	120.70	6.70		124.50	124.50	124.50	7.00
38		O2 (%)		7.00	7.00	7.00	7.00	6.70	6.70	6.70	6.70	7.00		7.00	7.00	7.00	7.00
39																	
40		PCDD/PCDF (ng in sample)		0.3367	0.3367	0.3367	0.3367	0.3199	0.3199	0.3199	0.3174	0.0910		0.3215	0.3215	0.3063	0.3063
41		PCDD/PCDF (ng/dscm @ 7% O2)	0.0	0.1008	0.1008	0.1008	0.1008	0.0917	0.0917	0.0917	0.0910	9.5		0.0913	0.0913	0.0869	0.0869
42																	
43		TEQ Cond Avg		0.0929	0.0929	0.0929	0.0929	0.0917	0.0917	0.0917	0.0910	9.5		0.0913	0.0913	0.0869	0.0869