

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase II ID No.	1017
4	EPA ID No.	TXD980808778
5	Facility Name	Sunoco Inc. (R&M) Pasadena Plant
6	Facility Location	
7	City	Pasadena
8	State	TX
9	Unit ID Name/No.	Boiler F- 8
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Liquid-fired boiler
13	Combustor Type	Liquid-fired
14	Combustor Characteristics	
15	Capacity (MMBtu/hr)	100
16	Soot Blowing	Yes, but uncharacterized
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	NA
20	Hazardous Wastes	Liq
21	Haz Waste Description	Waste liquid fuels and combined PA residues
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	6.5
26	Height (ft)	75.0
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	305
29		
30	Permitting Status	Tier I for metals and chlorine
	HWC Burn Status (Date if	
31	Terminated)	

	B	C
1	Cond Description	
2		
3	1017C1	
4		
5	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); File No. 95-165B, September 1995
6	Report Prepare	METCO Environmental
7	Testing Firm	METCO Environmental
8	Testing Dates	September 28, 1995
9	Cond Dates	Sep-95
10	Condition Descr	CoC; max feed waste liq 2EH
11	Content	PM, HCl/Cl ₂ , & CO emissions; metals, ash, & chlorine in waste feedstreams
12		
13	1017C2	
14		
15	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); File No. 95-165B, September 1995
16	Report Prepare	METCO Environmental
17	Testing Firm	METCO Environmental
18	Testing Dates	September 27, 1995
19	Cond Dates	Sep-95
20	Condition Descr	CoC; max feed waste liq 2EH and combined PA residue
21	Content	PM, HCl/Cl ₂ , & CO emissions; metals, ash, & chlorine in waste feedstreams
22		
23	1017C3	
24		
25	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); File No. 95-165B, September 1995
26	Report Prepare	METCO Environmental
27	Testing Firm	METCO Environmental
28	Testing Dates	September 29, 1995
29	Cond Dates	Sep-95
30	Condition Descr	CoC; max feed for combined PA residue
31	Content	PM, HCl/Cl ₂ , & CO emissions; metals, ash, & chlorine in waste feedstreams
32		
33	1017C4	
34		
35	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); 2000
36	Report Prepare	METCO Environmental
37	Testing Firm	METCO Environmental
38	Testing Dates	3/1-3/2000
39	Cond Dates	Mar-00
40	Condition Descr	Risk burn, normal operations
41	Content	HCl/Cl ₂ , CO, D/Fs, VOC/SVOC, total organics, aldehydes/ketones, & particle size emissions; metals, ash, & chlorine in waste feedstreams
42		
43	1017C5	
44		
45	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); 2000
46	Report Prepare	METCO Environmental
47	Testing Firm	METCO Environmental
48	Testing Dates	February 28, 2000
49	Cond Dates	Feb-00
50	Condition Descr	CoC
51	Content	PM
52		
53	1017C6	
54		
55	Report Name/Date	Source Emission Survey - Aristech Chemical Corp. - F-8 Boiler Stack (EPN 84); 2000
56	Report Prepare	METCO Environmental
57	Testing Firm	METCO Environmental
58	Testing Dates	February 29, 2000
59	Cond Dates	Feb-00
60	Condition Descr	CoC
61	Content	PM

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions											
2												
3		Comments	Units	7% O2								
4												
5										Sootblow		
6	1017C1					R1	R2	R3		Cond Avg		
7												
8	PM	E1	gr/dscf	y		0.0114	0.0104	0.1344		0.0172		
9	PM (total)	E1	gr/dscf	y		0.0118	0.0108	0.1347		0.0175		
10	HCl	E1	ppmv	y		0.05	0.06	0.13		0.08		
11	Cl2	E1	ppmv	y		0.02	0.02	0.02		0.02		
12	Total Chlorine	E1	ppmv	y		0.08	0.09	0.17		0.11		
13	CO (RA)	E1	ppmv	y		0.1	0.1	0.1		0.100		
14												
15	Sampling Train	PM, HCl/Cl2	E1									
16	Stack Gas Flowrate		dscfm			14414	14739	14489		14547.3		
17	O2		%			3.2	3.2	3.4		3.3		
18	Moisture		%			21.67	21.67	22.96		22.1		
19	Temperature		°F			313	314	312		313.0		
20												
21												
22	1017C2					R1	R2	R3		Cond Avg		
23												
24	PM	E1	gr/dscf	y		0.0195	0.0202	0.1149		0.052		
25	PM (total)	E1	gr/dscf	y		0.0202	0.0208	0.1153		0.052		
26	HCl	E1	ppmv	y		0.07	0.09	0.07		0.07		
27	Cl2	E1	ppmv	y		0.03	0.04	0.01		0.03		
28	Total Chlorine	E1	ppmv	y		0.13	0.17	0.08		0.13		
29	CO (RA)	E1	ppmv	y		0.1	1.4	0.9		0.8		
30												
31	Sampling Train	PM, HCl/Cl2	E1									
32	Stack Gas Flowrate		dscfm			15473	15776	15221		15490.0		
33	O2		%			4	4	3.4		3.8		
34	Moisture		%			19.04	19.17	20.56		19.6		
35	Temperature		°F			333	337	335		335.0		
36												
37												
38	1017C3					R1	R2	R3		Cond Avg		
39												
40	PM	E1	gr/dscf	y		0.0293	0.0294	0.1746		0.078		
41	PM (total)	E1	gr/dscf	y		0.0296	0.0296	0.1749		0.078		
42	HCl	E1	ppmv	y		0.02	0.03	0.04		0.03		
43	Cl2	E1	ppmv	y		0.02	0.02	0.01		0.02		
44	Total Chlorine	E1	ppmv	y		0.07	0.08	0.07		0.07		
45	CO (RA)	E1	ppmv	y		5.4	3.6	4.5		4.5		
46												
47	Sampling Train	PM, HCl/Cl2	E1									
48	Stack Gas Flowrate		dscfm			15221	15158	14879		15086		
49	O2		%			3.4	3.4	3.6		3.5		
50	Moisture		%			18.02	18.07	19.82		18.6		
51	Temperature		°F			306	304	304		304.7		
52												
53												
54	1017C4					R1	R2	R3		Cond Avg		
55												
56	CO (RA)	E1	ppmv	y		0.007	0.007	0.007		0.007		
57	HCl	E1	ppmv	y		0.5649	0.5215	0.6307		0.5724		
58	Cl2	E1	ppmv	y		0.0608	0.0659	0.0710		0.0659		
59	Total Chlorine	E1	ppmv	y		0.6866	0.6533	0.7726		0.7042		
60												
61												
62	Sampling Train	HCl/Cl2	E1									
63	Stack Gas Flowrate		dscfm			11197	9986	10402		10528		
64	O2		%			4	4	4.6		4.2		
65	Moisture		%			20.37	19.58	18.37		19.4		
66	Temperature		°F			299	299	298		299		
67												
68	Sampling Train	PSD	E2									
69	Stack Gas Flowrate		dscfm			10159	9856	9974		9996		
70	O2		%			4	3.8	4.6		4.1		
71	Moisture		%			21.1	22.0	24.1		22.4		

	B	C	D	E	F	G	H	I	J	K	L	M
72	Temperature		°F			300		298		299		299
73												
74												
75												
76												
77	1017C5					R1		R2		R3		Cond Avg
78												
79	PM	E1	gr/dscf	y		0.0172		0.0117		0.0267		0.0185
80												
81	Sampling Train	PM	E1									
82	Stack Gas Flowrate		dscfm			16824		13638		14369		14944
83	O2		%			6		4.8		4.6		5.1
84	Moisture		%			15.6		16.9		18.4		17.0
85	Temperature		°F			364		346		345		351.7
86												
87												
88												
89	1017C6					R1		R2		R3		Cond Avg
90												
91	PM	E1	gr/dscf	y		0.011		0.0136		0.0237		0.0161
92												
93	Sampling Train	PM	E1									
94	Stack Gas Flowrate		dscfm			16050		14202		15205		15152
95	O2		%			4.8		4.8		4.7		4.8
96	Moisture		%			20.3		19.4		20.7		20.1
97	Temperature		°F			341		343		348		344.0

	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	AA	
1	Feedstreams																										
2																											
3	1017C1																										
4	Feedstream Number																										
5	Feed Class																										
6	Feed Class 2																										
7	Feedstream Description																										
8	Feed Rate	lb/hr																									
9	Heating Value	Btu/lb																									
10	Ash	g/hr	nd																								
11	Chlorine	g/hr	121																								
12	Antimony	g/hr	2.28																								
13	Arsenic	g/hr	0.114																								
14	Barium	g/hr	0.057																								
15	Beryllium	g/hr	0.011																								
16	Cadmium	g/hr	0.011																								
17	Chromium	g/hr	0.126																								
18	Lead	g/hr	1.713																								
19	Mercury	g/hr	0.023																								
20	Silver	g/hr	0.263																								
21	Thallium	g/hr	10.17																								
22	Stack Gas Flowrate	dscfm																									
23	Oxygen	%																									
24	Thermal Feedrate	MMBtu/hr																									
25	Estimated Firing Rate	MMBtu/hr																									
26																											
27																											
28																											
29																											
30	<i>Feedrate MTEC Calculations</i>																										
31	Ash	mg/dscm	100																								
32	Chlorine	ug/dscm	3891																								
33	Antimony	ug/dscm	73.4																								
34	Arsenic	ug/dscm	3.7																								
35	Barium	ug/dscm	1.8																								
36	Beryllium	ug/dscm	0.4																								
37	Cadmium	ug/dscm	0.4																								
38	Chromium	ug/dscm	4.0																								
39	Lead	ug/dscm	55.0																								
40	Mercury	ug/dscm	0.7																								
41	Silver	ug/dscm	8.5																								
42	Thallium	ug/dscm	326.7																								
43																											
44	SVM	ug/dscm	55.4																								
45	LVM	ug/dscm	4.38																								
46																											
47	1017C2																										
48	Feedstream Number																										
49	Feed Class																										
50	Feed Class 2																										
51	Feedstream Description																										
52	Feedrate Waste Liq	lb/hr																									
53	Feedrate Residues	Btu/lb																									
54	Heating Value Liq	Btu/lb																									
55	Heating Value Res	g/hr																									
56	Ash	g/hr	nd																								
57	Chlorine	g/hr	192																								
58	Antimony	g/hr	3.02																								
59	Arsenic	g/hr	0.20																								
60																											

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
1	Feedstreams									
2										
3	1017C1									
4										
5	Feedstream Number									
6	Feed Class									
7	Feed Class 2									
8	Feedstream Descriptor									
9	Feed Rate									
10	Heating Value									
11	Ash									
12	Chlorine									
13	Antimony									
14	Arsenic									
15	Barium									
16	Beryllium									
17	Cadmium									
18	Chromium									
19	Lead									
20	Mercury									
21	Silver									
22	Thallium									
23										
24	Stack Gas Flowrate									
25	Oxygen									
26										
27	Thermal Feedrate									
28	Estimated Firing Rate									
29										
30	<i>Feedrate MTEC Calculi</i>									
31	Ash									
32	Chlorine									
33	Antimony									
34	Arsenic									
35	Barium									
36	Beryllium									
37	Cadmium									
38	Chromium									
39	Lead									
40	Mercury									
41	Silver									
42	Thallium									
43										
44	SVM									
45	LVM									
46										
47	1017C2									
48										
49	Feedstream Number									
50	Feed Class									
51	Feed Class 2									
52	Feedstream Descriptor									
53	Feedrate Waste Liq									
54	Feedrate Residues									
55	Heating Value Liq									
56	Heating Value Res									
57	Ash									
58	Chlorine									
59	Antimony									
60	Arsenic									

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
61	Barium									
62	Beryllium									
63	Cadmium									
64	Chromium									
65	Lead									
66	Mercury									
67	Silver									
68	Thallium									
69										
70	Stack Gas Flowrate									
71	Oxygen									
72										
73	Thermal Feedrate									
74	Estimated Firing Rate									
75										
76	Feedrate MTEC Calcul									
77	Ash									
78	Chlorine									
79	Antimony									
80	Arsenic									
81	Barium									
82	Beryllium									
83	Cadmium									
84	Chromium									
85	Lead									
86	Mercury									
87	Silver									
88	Thallium									
89										
90	SVM									
91	LVM									
92										
93										
94	1017C3									
95										
96	Feedstream Number									
97	Feed Class									
98	Feed Class 2									
99	Feedstream Descriptor									
100	Feed Rate									
101	Heating Value									
102	Ash									
103	Chlorine									
104	Antimony									
105	Arsenic									
106	Barium									
107	Beryllium									
108	Cadmium									
109	Chromium									
110	Lead									
111	Mercury									
112	Silver									
113	Thallium									
114										
115	Stack Gas Flowrate									
116	Oxygen									
117										
118	Thermal Feedrate									
119	Estimated Firing Rate									
120										

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ
121	Feedrate MTEC Calculi									
122	Ash									
123	Chlorine									
124	Antimony									
125	Arsenic									
126	Barium									
127	Beryllium									
128	Cadmium									
129	Chromium									
130	Lead									
131	Mercury									
132	Silver									
133	Thallium									
134										
135	SVM									
136	LVM									
137										
138	1017C4	Cond Avg		R1		R2		R3		Cond Avg
139										
140	Feedstream Number									
141	Feed Class				F3	F3	F3	F3	F3	F3
142	Feed Class 2	HW			Total	Total	Total	Total	Total	Total
143	Feedstream Descriptor				Total	Total	Total	Total	Total	Total
144	Feed Rate									
145	Heating Value									
146	Ash									
147	Chlorine									
148	Antimony									
149	Arsenic									
150	Barium									
151	Beryllium									
152	Cadmium									
153	Chromium									
154	Lead									
155	Mercury									
156	Silver									
157	Thallium									
158										
159	Stack Gas Flowrate			11197		9986		10402		10528
160	Oxygen			4		4		4.6		4.2
161						4		0		0
162	Thermal Feedrate	21.7		22		22		22		21.7
163										
164										
165	Feedrate MTEC Calculi									
166	Ash	0.03	3	0.03	3	0.03	3	0.03	3	0.03
167	Chlorine	11	100	5	100	5	100	23	100	11
168	Antimony	30	0	38	0	33	100	19	21	30
169	Arsenic	102	0	100	0	109	0	96	0	102
170	Barium	4	0	3	60	5	0	4	24	4
171	Beryllium	3	0	3	0	3	24	2	6	3
172	Cadmium	5	0	7	0	4	28	4	7	5
173	Chromium	28	0	17	4	32	0	34	2	28
174	Lead	50	0	44	0	56	0	51	0	50
175	Mercury	2	0	1	10	2	14	2	9	2
176	Silver	12	0	15	17	9	0	12	4	12
177	Thallium	135	100	72	100	159	100	173	100	135
178										
179	SVM	55		51		60		54		55
180	LVM	132		120		144		132		132

A	
1	Process Information
2	
3	1017C1
4	
5	None reported
6	
7	1017C2
8	
9	None reported
10	
11	1017C3
12	
13	None reported