ATTACHMENT N

PROCESS MONITORING DATA, RECENT TRIAL BURN

(32 Sheets)

US EPA ARCHIVE DOCUMENT

RUN 1

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
Start Run 1	385.5	2,066.9	2,111.2	4,319.658562	49.540064
1	377.9	2,057	2,117.7	4,269.89944	49.540064
2	371.6	2,039.7	2,122.2	4,219.553573	49.540064
3	366	2,021.4	2,110.6	4,945.705111	49.601104
4	379.5	1,966.1	2,092.3	7,138.581721	0.097664
5	398.6	1,985.7	2,083.6	4,744.062597	0.036824
6	393.4	2,053.2	2,100.9	4,382.804557	-0.024415
7	384.9	2,061.9	2,109.6	4,233.999194	-0.024416
8	377.6	2,055.7	2,104.9	4,319.658562	49.295904
9	371.3	2,041.3	2,097.1	4,205.058327	49.295904
10	365.1	2,024.6	2,090.1	4,233.999194	49.295904
11	366.8	1,975.8	2,085.3	6,563.750003	-0.024416
12	390.3	1,995.4	2,059.5	6,805.79972	49.723184
13	386.5	2,060.2	2,050.3	4,472.44174	49.662144
14	388.5	2,093.5	2,057.4	4,361.857466	49.723184
15	381	2,093.5	2,076.3	4,340.809294	49.723184
16	374.7	2,085.3	2,092.6	4,312.585267	49.723184
17	369.5	2,071.4	2,110.6	4,298.403758	49.723184
18	365	2,054.8	2,114.1	5,109.655186	49.723184
19	380.4	2,031.1	2,092.6	7,061.182451	0.097664
20	399.7	2,045.8	2,081.1	4,626.77842	50.028384
21	393.2	2,104.2	2,116.4	4,396.713842	50.028384
22	388.5	2,118.6	2,117.7	5,718.64358	50.089424
23	385.3	2,109	2,116.4	4,326.720294	50,089424
24	379	2,106.1	2,108.7	4,255.575684	50.028384
25	373.2	2,091.9	2,093.5	4,262.743578	50.028384
26	368.6	2,075	2,085.6	5,127.548278	50.028384

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
27	383.1	2,043.5	2,088.5	6,894.931329	50.028384
28	402.6	2,043.6	2,071.4	4,705.292708	49.479024
29	396.3	2,101.3	2,095.5	4,389.764709	49.112784
30	388.4	2,126.7	2,090.1	4,333.77052	49,112784
31	383.5	2,125.4	2,089	4,410.579262	49.112784
32	378.3	2,115.1	2,102.2	4,737.622982	49.112784
33	375	2,095.9	2,112.3	4,361.857466	49.112784
34	370.2	2,084	2,113.5	4,685.787472	49.112784
35	382.8	2,034	2,098	6,774.326605	49.112784
36	403.7	2,026.2	2,082.7	4,951.874136	49.479024
37	398.1	2,087.2	2,101.3	4,465.610452	49.479024
38	398.4	2,075.9	2,094.8	4,920.951677	49.479024
39	393.2	2,082	2,105.8	4,354.852712	49.417984
40	385.8	2,084.5	2,100	4,403.652009	49.356944
41	379.2	2,074.6	2,094.3	4,361.857466	49.479024
42	381.7	2,068.9	2,092.6	6,747.232803	49.479024
43	410.3	2,197.4	2,0775.	6,828.191699	49.540064
44	435	2,169.5	2,088.5	6,921.446994	49,479024
45	453.5	2,129.5	2,079.1	6,863.866924	49.479024
46	451.9	2,133.5	2,095.5	4,976.473761	49.540064
47	440.2	2,092.3	2,085.6	6,060.754034	49.540064
48	415.4	2,123.4	2,101.6	5,025.311769	49.540064
49	406.7	2,076.6	2,090.7	5,019.233006	49.540064
50	393.8	2,106.1	2,108.7	4,465.610452	49.540084
51	391.1	2,090.7	2,105.4	4,659.653485	49.479024
52	383.3	2,100.9	2,108.9	4,284.175305	49.540064
53	374.3	2,110.6	2,112.3	4,795.26821	49.540064

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
54	379.2	2,034.9	2,103.8	4,465.610452	49.540064
55	378.5	2,030.7	2,095.5	6,586.964866	49.540064
56	399.2	2,079.1	2,072.5	6,637.751777	49.417984
57	402.4	2,127.2	2,085.6	5,989.818171	49.417984
58	412.3	2,081.7	2,080.8	4,633.372093	49.417984
59	402.8	2,112.8	2,098.8	4,403.652009	49.417984
60	401.3	2,090.7	2,097.1	4,486.073109	49.417984
61	396.1	2,079.5	2,091	6,000.003211	49.417984
62	392.3	2,064.7	2,086.9	5,031.383188	49.417984
63	404.7	2,067.3	2,085.3	6,978.551986	49.417984
64	422.4	2,085.3	2,073	4,698.799959	49.417984
65	425.1	2,090.7	2,068.5	6,706.386867	-0.024416
66	425.8	2,071.4	2,099.3	4,396.713842	-0.086456
67	411.8	2,087.8	2,106.7	5,632.579324	49.540064
68	403.8	2,069.2	2,111.9	4,396.713842	49.479024
69	392.3	2,073	2,112.3	4,291.295429	0.097664
70	389.1	2,042.6	2,100	6,582.328443	-0.024416
71	410.9	2,059.9	2,077.9	6,720.029765	0.036624
72	413.7	2,104.5	2,075.9	6,263.875339	0.097664
73	422.2	2,054.8	2,083.6	4,782.518206	0.036624
74	410.9	2,069.8	2,095.9	6,020.321601	-0.085456
75	406.4	2,037.4	2,092.3	4,340.809294	-0.085456
76	393.9	2,048.7	2,093	4,424.40123	-0.024416
77	383.1	2,045.5	2,098.8	4,340.809294	-0.024416
78	374	2,036.8	2,101.6	4,277.043329	49.662144
79	366.2	2,030	2,093	4,262.743578	49.356944
80	361	2,023.3	2,084	4,255.575684	-0.146496

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
81	365.1	1,974.6	2,078.2	6,586.964866	49.540064
82	366.6	1,956.6	2,068.9	6,283.340505	-0.024416
83	387.3	2,036.5	2,099.7	4,396.713842	-0.024416
84	392.7	2,017.6	2,078.2	6,105.920499	-0.146496
85	390	2,025.9	2,092.3	4,319.658562	-0.085456
86	381.3	2,043	2,098	4,255.575684	-0.085456
87	374.1	2,047.1	2,099.7	4,354.852712	-0.085456
88	368.4	2,040.6	2,093.9	4,168..599703	-0.024416
89	369.3	2,004.4	2,087.2	6,507.696457	-0.024416
90	391.1	2,003.7	2,070.9	6,605.478013	-0.024416
91	394.8	2,044.8	2,084.9	4,375.833335	-0.024416
92	399	2,019.2	2,096.4	6,175.522884	-0.085456
93	395.2	2,025	2,094.8	4,403.652009	49.417984
94	384.9	2,034.9	2,986.5	4,340.809294	-0.024416
95	376.5	2,030	2,084.9	4,312.585267	49.784224
96	369.1	2,021.7	2,086.5	4,291.295429	49.845264
97	374.9	1,975.8	2,087.8	6,633.150854	48.380304
98	394.1	1,968.3	2,066.4	5,285.86118	49.845264
99	388.9	2,025.3	2,080.4	4,277.043329	49.845264
100	381.5	2,050.3	2,084.9	5,433.953172	0.097664
101	377.9	2,033.6	2,101.6	4,241.203554	-0.024416
102	371.4	2,033.6	2,113.2	4,256.403758	49.234884
103	366.2	2,023	2,114.8	4,277.043329	49.295904
104	361.2	2,008.2	2,114.1	5,121.59086	49.234864
105	374.9	1,972.4	2,091.9	6,810.284006	-0.024416
106	393.2	1,983.7	2,080.8	4,540.189337	49.479024
107	386.2	2,045.1	2,084.5	4,354.852712	49.479024

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
108	379.7	2,077.2	2,085.3	4,396.713842	49.479024
109	375.2	2,075.9	2,087.2	4,226.782555	49.479024
110	371.1	2,064.7	2,100	4,312.585257	49.479024
111	367.1	2,049.6	2,111.2	4,277.043329	49.479024
112	369.6	2,008.2	2,106.7	6,536.783322	49.479024
113	392.9	2,001.6	2,076.3	6,531.110566	49.479024
114	396.5	2,023	2,077.9	4,340.809294	-0.024416
115	389.4	2,046.7	2,087.8	4,277.043329	49.479024
116	383.7	2,054.1	2,096.8	4,312.585267	49.479024
117	379.7	2,051.2	2,107.8	4,340.809294	49.479024
118	377.4	2,041	2,114.8	4,241.203554	49.479024
119	374.9	2,028.7	2,112.3	5,204.374187	49.479024
120	390.7	1,962	2,104.5	6,850.510487	49.479024
121	408.9	1,978.3	2,081.1	4,659.653485	49.601104
122	403.7	2,026.2	2,099.3	4,389.764709	49.601104
123	397.9	2,029.5	2,117.3	4,431.296047	49.601104
124	391.2	2,025.3	2,128.3	4,375.833335	49.601104
125	385.3	2,014.7	2,126.7	4,305.500351	49.540064
126	379.5	2,002.8	2,122.2	4,248.395697	49.601104
127	380.4	1,959.1	2,107.4	6,619.328895	49.601104
128	401.7	1,947.4	2,082	6,474.77446	49.601104
129	400.2	2,005.3	2,091.4	4,587.017341	49.540064
130	392.7	2,041	2,104.9	4,382.804557	49.540064
131	384.9	2,036.8	2,116.4	4,262.743578	49.540064
132	378.6	2,024.2	2,131.2	4,403.652009	49.540064
133	377.6	2,026.6	2,125.4	4,458.768697	49.540064
134	378.3	2,024.2	2,116	4,403.652009	49.601104

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
135	393.9	1,999.6	2,100.4	7,069.824215	49.540064
136	416.3	2,009.8	2,092.6	4,750.493483	-0.024416
137	413.2	2,069.8	2,114.1	4,546.908679	49.234864
138	407.1	2,082.7	2,120.2	4,340.809294	49.234864
139	401.1	2,071.4	2,111.5	4,291.295429	49.234864
140	393.4	2,057.4	2,120.9	4,094.708706	49.234864
141	383.1	2,044.8	2,117.7	4,161.269647	49.234864
142	374.9	2,030.4	2,108.3	4,606.940776	49.234864
143	387.1	1,987.5	2,099.3	6,890.502131	-0.085456
144	405.5	1,990.8	2,096.8	4,587.017341	49.295904
145	399.9	2,049.3	2,110.6	4,354.852712	49.295904
146	393.4	2,081.1	2,121.8	4,445.053597	49.295904
147	387.1	2,087.2	2,126.3	4,375.833335	49.295904
148	384.4	2,125	2,134.8	4,277.043329	49.295904
149	381	2,108.7	2,135.1	4,305.500351	49.295904
150	377.4	2,091	2,129.2	4,212.312185	49.295904
151	374	2,073.4	2,127.9	4,233.999194	49.234864
152	378.6	2,025.9	2,120.5	6,517.072195	49.295904
153	403.7	2,024.6	2,100	6,000.003211	49.417984
154	404.2	2,080.4	2,106.7	4,396.713842	49.417984
155	396.6	2,097.5	2,112.3	4,319.658562	49.356944
156	389.8	2,098.8	2,120.5	4,305.500351	49.417984
157	383.9	2,091	2,137.3	4,255.575684	49.417984
158	378.6	2,076.3	2,141.2	4,183.221283	49.417984
159	374.1	2,060.6	2,130.8	5,007.05334	49.417984
160	391.2	2,040.1	2,114.1	6,854.965524	49.417984
161	409.1	2,060.2	2,102.9	4,424.40123	-0.024416

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
162	402.6	2,108.3	2,129.2	4,326.720294	0.036624
163	396.1	2,133.1	2,114.1	4,269.89944	-0.146496
164	390.5	2,134	2,114.1	4,291.295429	-0.024416
165	385.7	2,123.4	2,111.5	4,219.553573	49.540064
166	381.5	2,110.3	2,113.5	4,153.926656	49.479024
167	377.4	2,094.8	2,115.1	5,221.942733	49.540064
168	392	2,032	2,100	6679.017458	49.540064
169	405.6	2,044.8	2,119.3	4,519.97188	49.540064
170	400.8	2,104.9	2,138	4,219.553573	49.540064
171	394.3	2,125	2,122.5	4,368.850989	49.540064
172	388.7	2,121.8	2,113.2	4,262.743578	49.540064
173	383.5	2,109.6	2,125.4	4,226.782555	49.601104
174	379	2,093.5	2,138.9	4,262.743578	49.662144
175	382.8	2,058.3	2,125.9	6,512.386013	49.601104
176	405.1	2,029.1	2,107	5,456.379818	49.601104
177	404.2	2,088.5	2,124.3	4,319.658562	49.601104
178	397.4	2,115.7	2,127.6	4,277.043329	49.173824
179	391.6	2,125	2,125	4,333.77052	49.234864
180	386.4	2,117.7	2,131.2	4,248.395697	49.234864
181	381.7	2,105.4	2,136.7	4,205.058327	49.173824
182	377.7	2,089	2,134.4	4,951.874136	49.784224
183	394.1	2,036.1	2,118	6,573.045787	49.234864
184	405.3	2,077.5	2,111.2	4,458.768697	49.173824
185	399.7	2,125	2,114.8	4,312.585267	49.173824
186	393.4	2,129.2	2,123.4	4,262.743578	-0.146496
187	388.2	2,125	2,129.2	4,248.395697	49.417984
188	383.1	2,112.3	2,140.5	4,219.553573	49.417984

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
189	378.8	2,098.4	2,142.1	4,291.295429	49.417984
190	379.9	2,063.1	2,130.8	6,317.260227	49.417984
191	401.7	2,026.2	2,109	5,729.31071	-0.146496
192	402	2,107.4	2,118.9	4,333.77052	-0.146496
193	395.7	2,136.7	2,132.8	4,248.395697	-0.024416
194	389.8	2,131.5	2,143.8	4,226.782555	-0.0854566
195	384.4	2,117.7	2,145.7	4,219.553573	-0.024416
196	379.7	2,102.2	2,146.5	4,269.89944	-0.146496
197	375.4	2,085.6	2,145.7	5,061.631045	-0.024416
198	390.9	2,035.6	2,125.4	6,720.029765	0.036624
Mean	389.67	2,061.02	2,103.96	4,941.20	37.29
Minimum	361.00	1,947.40	2,050.30	4,094.71	-0.15
Maximum	453.50	2,197.40	2,146.50	7,138.58	50.09

RUN 2

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
Start Run 2					
0	372.3	1,979.1	2,101.6	6,115.91219	49.662144
1	373.1	1,949	2,107.4	4,175.91689	49.662144
2	363	1,975.8	2,114.8	4,146.57066	49.662144
3	354.2	1,983.4	2,115.7	4,064.77622	49.601104
4	349.1	1,961.6	2,111.5	5,912.87118	49.662144
5	369.1	2,018.5	2,087.2	6,540.45274	49.662144
6	394.5	2,019.7	2,056.6	6,526.43446	49.662144
7	416.1	1,969.9	2,052.5	6,498.30719	-0.085456
8	407.1	1,998.7	2,987.2	5,718.64358	49.051744
9	410	1,952.8	2,082.4	4,795.26821	49.051744
10	393.2	1,988.8	2,095.5	5,461.97209	49.051744
11	391.8	1,949.4	2,089.8	4,382.80456	48.990704
12	376.7	1,983.7	2,104.5	4,168.5997	49.051744
13	370.5	1,949.4	2,099.7	4,175.91689	48.929664
14	372.5	1,972.8	2,102.2	6,398.88817	48.990704
15	396.1	2,010.2	2,075	6,258.99959	48.990704
16	414.6	2,008.6	2,080.8	6,322.09105	48.990704
17	428.7	1,986.3	2,080.8	6,288.19738	48.929664
18	427.1	1,991.3	2,089	4,659.65349	48.990704
19	417.7	1,964.5	2,084	4,533.46014	48.990704
20	395.2	1,996.3	2,089	4,057.2586	48.990704
21	375.6	2,017.6	2,088.1	4,027.04776	48.990704
22	372.3	1,983.7	2,089	6,234.56364	48.990704
23	392.9	1,961.1	2,075.9	5,777.06906	48.990704
24	384.6	2,011.1	2,089.8	4,183.22128	49.11278
25	370.9	2,040.6	2,091.4	4,064.77622	48.990704

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
26	359.7	2,045.5	2,107	4,034.62168	48.929664
27	350	2,041.9	2,112.3	4,042.18141	48.990704
28	342.6	2,036.5	2,110.3	4,072.27997	48.990704
29	336.5	2,025	2,107	4,057.2586	-0.024416
30	333.6	2,001.2	2,098.8	5,506.50583	49.234864
31	356.5	1,963.6	2,090.7	6,441.68421	49.234864
32	370.4	2,002.8	2,102.9	4,255.57568	49.234864
33	363.5	2,057.4	2,105.8	4,233.99919	50.211504
34	358.1	2,0609.2	2,111.2	4,175.91689	50.211504
35	353.8	2,051.2	2,116	4,102.1577	49.173824
36	349.7	2,036.5	2,105.4	4,057.2586	49.234864
37	345.9	2,023	2,097.5	4,139.2018	49.234864
38	358.3	1,969.5	2,097.1	6,669.86938	49.234864
39	379.9	1,975.3	2,096.4	4,451.91643	49.356944
40	375.4	2,027.5	2,119.6	4,284.17531	49.417984
41	369.6	2,052.1	2,139.3	4,168.5997	49.356944
42	363	2,040.6	2,149.7	4,131.81939	49.356944
43	357.2	2,030.4	2,150.1	4,153.92666	49.417984
44	352.7	2,020.1	2,146.5	4,087.24614	49.417984
45	353.1	2,014.3	2,127.9	5,892.18227	49.417984
46	375.8	1,985.7	2,101.6	6,540.45274	49,479024
47	3876.4	2,011.1	2,105.41	4,305.50035	49.479024
48	379.9	2,059.5	2,102.9	4,319.65856	49.051744
49	373.1	2,059.5	2,109.6	4,101.20905	49.051744
50	367.1	2,048	2,119.6	4079.76992	49.051744
51	362.6	2,035.2	2,129.9	4,117.01526	49,051744
52	359.4	2,029.1	2,130.3	4,284.17531	48.990704

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
53	359.7	2,029.1	2,119.6	5,561.67156	48.990704
54	382.1	1,990.8	2,101.6	6,573.04579	48.990704
55	396.1	2,014	2,121.8	4,410.57926	48.990704
56	391.2	2,061.9	2,129.5	4,361.85747	-0.024416
57	384.4	2,087.6	2,136	4,168.5997	49.540064
58	377.9	2,058.6	2,135.1	4,146.57066	49.540064
59	371.8	2,048	2,131.9	4,161.26965	49.540064
60	366.6	2,034.9	2,127.9	4,146.57066	49.540064
61	364.6	2,027.1	2,121.8	5,755.89205	49.540064
62	388.2	2,011.1	2,106.1	6,610.0982	49.601104
63	401.7	2,032	2,124.3	4,410.57926	49.601104
64	395.7	2,068	2,128.3	4,212.31219	49.417984
65	388.2	2,064	2,120.9	4,168.5997	49.417984
66	381.5	2,057.4	2,125	4,212.31219	49.417984
67	375.6	2,045.8	2,125	4190.51294	49.479024
68	370.5	2,039.7	2,127.9	4,241.20355	49.479024
69	373.4	2,020.1	2,118.6	6,331.74163	49,479024
70	398.1	1,999.9	2,097.5	6,427.45052	49.479024
71	402.4	2,041.3	2,116	4,396.71384	0.097664
72	396.1	2,079.5	2,109.9	4,212.31219	49.234864
73	388.2	2,074.6	2,117.3	4,146.57066	49.234864
74	381.5	2,064	2,129.2	4,241.20355	49.234864
75	375.6	2,052.5	2,131.5	4,124.42396	49.234864
76	370.4	2,039.4	2,127.6	4298.40376	49.234864
77	378.6	2,017.9	2,112.3	6,446.42179	49.234864
78	404.9	2,028.2	2,084.9	5,578.11489	49.234864
79	403.7	2,076.6	2,090.7	4,361.85747	49.417984

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
80	395.9	2,092.6	2,106./7	4,197.79194	49.356944
81	388.5	2,093	2,121.42	4,161.26965	49.417984
82	382.4	2,088.1	2,132.8	4,183.22128	49.417984
83	376.7	2,076.6	2,140.9	4,124.42398	49.417984
84	374.5	2,050.3	2,140	5,813.94322	49.358944
85	396.5	2,018	2,107	6,720.02977	49.356944
86	406.2	2,051.2	2,107.8	4,451.91643	49.112784
87	399.3	2,080.8	2,114.4	4,219.55357	49.112784
88	392.1	2,075.9	2,124.7	4,241.20355	49.173824
89	386.7	2,068.5	2,131.9	4,197.79194	49.112784
90	381.9	2,057	2,145.7	4,212.31219	49.173824
91	377.9	2,044.8	2,147.4	4,168.5997	49.234864
92	387.8	2,009.5	2,127.9	6,837.12796	49.173824
93	407.4	2,016.3	2,104.9	4,519.97168	49.173824
94	402.8	2,070.1	2,116.9	4,375.83334	49.662144
95	396.5	2,123.1	2,123.8	4,183.22128	49.723184
96	389.4	2,111.5	2,129.9	4,205.05833	49.784224
97	383.3	2,093.9	2,131.2	4,255.57588	49.723184
98	377.9	2,076.6	2,125.4	4,168.5997	49.723184
99	377	2,040.1	2,118	6,120.90193	49.723184
100	399.2	2,206.6	2,097.1	6,646.94407	49.723184
101	405.1	2,059.5	2,100.4	4,506.44285	249.601104
102	399.2	2,096.4	2,118.6	4,284.17531	49.601104
103	392.3	2,093.9	2,128.6	4,255.57568	49.601104
104	386	2,083.6	2,128.3	4,291.29543	49.601104
105	380.4	2,070.5	2,129.2	4,197.79194	49.601104
106	375.6	2,056.1	2,127.9	4,820.66705	49.540064

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
107	398.8	2,053.2	2,110.6	6,814,76534	-0.024416
108	409.6	2,079.9	2,104.5	4,431.29605	49.79024
109	403.5	2,129.2	2,112,3	4,382.80456	49.417984
110	398.6	2,174	2,108.1	5,734.63684	49.79024
111	400.2	2,149	2,113.5	4,305.50035	49.479024
112	393.9	2,143.2	2,111.9	4,226.78256	49.417984
113	387.8	2,131.5	2,113.2	4,190.51294	49.417984
114	351.5	2,030.4	2,112.3	4,354.85271	49.479024
115	360.5	1,989.5	2,111.2	6,531.11057	49.479024
116	376.5	2,002.1	2,101.3	4,506.44285	49.540064
117	374	2,059.5	2,115.1	4,333.77052	49.417984
118	369.3	2,075	2,127.9	4,219.55357	49.479024
119	364.6	2,074.3	2,138.4	4,219.55357	49.417984
120	361	2,073.4	2,136.7	4,269.89944	-0.085456
121	357.2	2,072.1	2,133.1	4,190.51294	49.417984
122	354.9	2,069.2	2,127.9	4,212.31219	49.417984
123	352.4	2,057	2,121.4	4,763.32921	49.417984
124	366.8	2,010.2	2,116.9	6,796.82227	49.356944
125	384.6	2,030	2,117.7	4,499.6318	49.295904
126	381.2	2,083.6	2,135.7	4,298.40376	49.356944
127	375.9	2,096.8	2,149.3	4,233.99919	49.295904
128	375.4	2,116.4	2,153.3	4,124.42396	49.295904
129	381.3	2,111.2	2,131.2	5,337.58879	49.295904
130	379.2	2,082	2,120.2	4,027.04776	49.295904
131	372.3	2,057.4	2,113.2	4,117.01526	49.356944
132	380.6	1,995.1	2,107.4	6,258.99959	49.356944
133	384.2	2,000.8	2,104.2	4,248.3957	49.295904

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
134	379.4	2,022.1	2,103.3	5,723.97963	49.295904
135	379.7	2,007.3	2,103.3	4,161.26965	49.295904
136	374	2,023.7	2,104.2	4,219.55357	49.295904
137	368.7	2,028.2	2,105.4	4,262.74358	49.295904
138	364.2	2,027.1	2,105.8	4,153.92666	49.295904
139	360.5	2,025	2,098.8	4,175.91689	49.295904
140	357.2	2,020.1	2,093	4,319.65856	49.295904
141	368	1,997.6	2,100	7,026.50911	49.356944
142	395.4	2,017.2	;2,095.9	4,801.63052	-0.024416
143	3902.7	2,093.5	2,113.2	4,183.22128	49.234864
144	389.4	2,075	2,107	5,627.1566	49.295904
145	384.6	2,072.1	2,129.2	4,161.26965	49.234864
146	376.3	2,080.4	2,132.4	4,139.2016	49.234864
147	369.6	2,078.2	2,128.6	4,102.1577	49.234864
148	366.2	2,059.9	2,118	5,605.41326	49.234864
149	388	2,023.7	2,110.6	6,881.63518	48.868624
150	397.7	2,065.6	2,144.5	4,347.83887	48.807584
151	392.9	2,109.9	2,159.8	4,248.3957	48.868624
152	401.3	2,074.3	2,166.8	3,988.96248	48.807584
153	300	2,082.7	2,162.3	4,087.24614	48.868624
154	399.3	2,084.5	2,155.8	4,072.27997	48.868624
155	399.9	2,077.2	2,14;5.4	4,042.18141	48.868624
156	400.4	2,066.9	2,136	3,942.77455	48.868624
157	412.1	2,033.6	2,127.6	6,943.46603	48.746544
158	442.9	2,049.6	2,116.9	5,256.90369	48.502384
159	441.3	2,107.4	2,132.4	4,312.58527	48.502384
160	444.9	2,068.5	2,136.7	4,633.37209	48.502384

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
161	427.6	2,082	2,147	4,248.3957	48.502384
162	407.1	2,090.1	2,147.7	4,205.05833	48.502384
163	398.6	2,0876.8	2,146.1	4,212.31219	48.502384
164	395.4	2,079.5	2,142.1	5,097.69157	48.502384
165	412.8	2,027.8	2,134.8	7,104.28615	48.502384
166	432.3	2,068.5	2,118.6	4,718.2514	49.479024
167	421.3	2,114.1	2,127.6	5,506.50583	49.479024
168	413.2	2,077.2	2,141.2	4,269.89944	49.417984
169	393.2	2,094.3	2,148.6	4,277.04333	49.417984
170	376.7	2,097.1	2,145.7	4,205.05833	49.417984
171	365.7	2,091	2,146.1	4,291.29543	49.417984
172	365.3	2,093.5	2,138.9	5,067.65895	49.417984
173	385.3	2,066.4	2,125.9	6,939.06781	50.028384
174	402.9	2,073	2,106.7	4,424.40123	50.028384
175	400.6	2,100.9	2,118	6,288.19738	50.028384
176	411.4	2,073	2,150.1	4,319.65856	50.028384
177	403.7	2,095.5	2,154.6	4,368.85099	50.028384
178	397.2	2,099.3	2,154.2	4,284.17531	50.928384
179	391.2	2,095.2	2,152.6	4,312.58527	49.967344
180	392.7	2,063.1	2,142.1	6,697.27616	-0.024416
181	417.3	2,046.7	2,115.7	6,398.88817	49.051744
182	416.4	2,079.5	2,118	4,347.83667	49.112784
183	407.4	2,104.2	2,104.9	5,377.47738	49.051744
184	409.4	2,064	2,120.9	4,368.85099	49.051744
185	398.6	2,077.2	2,124.3	4,312.58527	48.990704
186	381.7	2,082	2,129.2	4,226.78256	48.990704
187	368.6	2,078.8	2,135.7	5,079.6933	48.990704

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
188	380.3	2,063.5	2,108.7	6,956.644	50.150464
189	398.1	2,105.8	2,064.7	5,691.88829	50.150464
190	140.1	2,066.4	2,065.6	6,545.11883	50.150464
191	404.4	2,094.3	2,082	5,500.95883	50.211504
192	408.9	2,040.1	2,086.9	4,939.52838	50.211504
193	395.4	2,066	2,100.4	4,312.58527	50.211504
194	381	2,081.1	2,104.9	4,284.17531	50.211504
195	373.4	2,064	2,109.9	6,175.52288	50.272544
196	398.6	2,039.4	2,077.9	5,337.58879	50.272544
197	381.9	2,098	2,073.4	5,855.8008	50.272544
198	396.5	2,053.2	2,0897.8	4,839,62871	-0.024416
199	390.3	2,085.6	2,106.1	4,333.77052	49.967344
200	385.7	2,058.3	2,108.3	4,291.29543	49.967344
201	374.1	2,069.8	2,111.5	4,205.05833	50.028384
202	364.8	2,072.5	2,117.7	4,513.21233	49.967344
203	373.8	2,020.5	2,109.9	6,859.41767	50.028384
204	385.5	2,047.5	2,094.3	4,533.46014	50.089424
205	390.5	2,059	2,092.6	6,614.71518	50.089424
206	401.7	2,040.1	2,103.3	4,458.7687	50.028384
207	399	2,052.5	2,099.3	6,100.91852	50.089424
208	398.6	2,036.1	2,108.3	4,298.40376	50.150464
209	388.4	2,046.7	2,108.3	4,269.89944	50.150464
210	386	2,027.1	2,114.1	6,582.32844	50.150464
211	404.4	2,017.6	2,099.7	4,933.34392	50.272544
212	404.4	2,093.9	2,089.8	6,783.33383	50.272644
213	425.6	2,049.3	2,093.5	6,947.86147	50.272544
214	424.5	2,040.1	2,111.5	4,626.77842	50.272544

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
215	402.9	2,064	2,113.2	5,055.59595	50.272544
216	387.5	2,045.8	2,114.8	4,553.61791	50.272544
217	377.4	2,046.7	2,121.8	4,567.00699	50.272544
218	387.8	2,002.1	2,107	6,823,71918	-0.024416
219	396.5	2,025.3	2,103.3	4,540.18934	49.479024
220	393.8	2,051.6	2,096.8	6,465.33738	49.479024
221	396.8	2,036.5	2,112.8	4,326.72029	49.479024
222	385.3	2,061.1	2,124.7	4,190.51294	49.417984
223	375.6	2,066.4	2,128.3	4,233.99919	49.479024
224	367.5	2,059	2,127.6	4,197.79194	49.479024
225	366.6	2,031.6	2,122.2	6,554.44104	49.356944
226	388	2,014	2,100	5,251.09303	51.066064
227	383.1	2,079.9	2,098	5,326.13718	50.028384
228	397.2	2,043.5	2,100	4,750.49348	50.028384
229	394.1	2,080.4	2,104.2	4,396.71384	49.967344
230	402.2	2,041.9	2,108.3	4,486.07311	50.028384
231	397	2,063.1	2,108.3	4,269.89944	49.967344
232	389.4	2,073.7	2,108.3	4,262.74358	49.967344
233	394.5	2,034.5	2,116.4	6,610.0982	-0.085456
234	408	2,036.1	2,097.5	4,744.0626	50.211504
235	401.9	2,084.9	2,093	6,190.33587	50.211504
236	412.7	2,044.2	2,094.3	4,826.99588	50.211504
237	404.6	2,080.8	2,104.5	4560.31736	50.211504
238	401	2,054.1	2,106.7	4,368.85099	50.272544
239	386.7	2,064	2,111.5	4,326.72029	50.211504
240	377.9	2,051.6	2,117.3	6,075.84683	50.272544
241	395.4	2,023.7	2,099.3	5,861.01198	50.211504

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
242	389.6	2,073	2,108.3	4,620.17534	50.150464
243	394.1	2,036.1	2,098.4	5,343.30539	50.211504
244	385.3	2,071.8	2,107.8	4,340.80929	50.150464
245	382.1	2,055.7	2,103.3	4,763.32921	50.150464
246	375.2	2,077.2	2,114.1	4,284.17531	50.150484
247	372	2,064	2,121.8	4,410.57926	-0.024416
248	378.8	2,034.9	2,126.3	6,765.30739	49.967344
249	393	2,078.2	2,093.9	4,672.73875	49.967344
250	401.7	2,054.5	2,085.6	6,596.22794	50.028384
251	399.2	2,089.4	2,091.9	5,433.95317	49.967344
252	405.6	2,045.8	2,092.6	4,813.5628	49.967344
253	395.2	2,2089.4	2,091.9	5,433.95317	49.967344
254	298.4	2,045.1	2,097.5	4,354.85271	50.028384
255	387.3	2,074.6	2,105.8	4,277.04333	50.028384
256	381.7	2,061.5	2,110.6	4,672.73875	49.967344
257	373.4	2,056.6	2,122.5	4,233.99919	49.967344
258	364.1	2,052.1	2,127.9	4,795.26821	49.967344
259	374.7	2,0101.2	2,111.9	6,697.27616	49.723184
260	381.5	2,030	2,096.4	4,593.66809	49.723184
261	373.4	2,078.2	2,091.4	5,675.77458	49.784224
262	376.8	2,044.8	2,096.4	4,567.00699	49.784224
263	367.1	2,064.4	2,102.2	4,190.51294	49.723184
264	357.8	2,069.2	2,111.2	4,241,20355	49.723184
265	350.4	2,064.7	2,118.9	4,190.51294	49.784224
266	349.7	2,029.5	2,125.9	6,623.93942	-0.085456
267	366.8	2,023.3	2,095.4	4,845.93278	49.662144
268	367.3	2,088.5	2,086.9	6,573.04579	49.662144

Time (minute)	Baghouse Inlet T °F 10G-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 10G-FE-2	Waste Feedrate (gpm) ISF-WT-1
269	381.3	2,058.3	2,089.4	4,826.99588	49.723184
270	377.4	2,074.3	2,089	6,455.88651	49.723184
271	384.2	2,034.5	2,104.9	4,298.40376	49.723184
272	379	2,060.2	2,108.7	4,219.55357	49.662144
273	374.1	2,066	2,112.8	4,883.58628	49.723184
274	388.7	2,033.2	2,101.3	6,6751.75599	49.540064
275	399.2	2,058.3	2,092.6	4,472.44174	490064
276	405.5	2,076.6	2,087.2	6,810.28410	49.540064
277	408.2	2,084	2,107	4,600.30922	49.540064
278	408.9	2,054.5	2,086.5	6,360.60551	49.601104
279	399	2,089	2,088.1	5,067.65895	49.540064
280	398.6	2,031.1	2,090.1	4,659.65349	49.540064
281	390.7	2,036.8	2,109	6,384.55907	49.540064
282	402.4	2,009.5	2,079.9	5,151.30906	49.540064
283	395.7	2,086.5	2,052.1	6,488.90434	49.540064
284	411.4	2,052.1	2,045.5	4,976.47376	49.540064
285	396.5	2,078.2	2,060.2	6,125.88759	49.540064
286	394.5	2,034.9	2,082.4	4,499.66318	49.540064
287	376.3	2,058.6	2,094.8	4,424.40123	49.540064
288	370.5	2,065.6	2,096.8	4,175.91689	49.540064
289	374.3	2,063.1	2,103.3	4,057.2586	49.540064
Mean	385.80	2,050.43	2,112.04	4,926.10	47.29
Minimum	333.6	1,949	2,045.5	3,942.77455	-0.085456
Maximum	444.9	2,174	2,166.8	7,104.28615	51.066064

RUN 3

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
Start Run 3					
0	369.1	2,081.7	2,089	4,205.058327	48.990704
1	368.6	2,059	2,083.6	5,274.297261	48.990704
2	391.8	2,024.6	2,066.4	6,623.939419	48.990704
3	418.8	2,040.1	2,053.2	4,852.228652	49.051744
4	407.4	2,112.8	2,050.3	4,326.720294	-0.024416
5	395.4	2,141.2	2,083.6	4,659.653485	49.662144
6	387.6	2,135.1	2,088.1	4,277.043329	49.662144
7	379.4	2,131.9	2,098	4,319.658562	49.662144
8	374.3	2,121.4	2,107.8	4,226.782555	49.662144
9	370.9	2,108.7	2,117.7	4,079.769916	49.662144
10	378.8	2,097.1	2,093	6,374.988447	49.662144
11	412.1	2,177.6	2,053.2	6,288.747297	49.662144
12	434.4	2,138	2,042.6	6,249.236676	49.662144
13	448.1	2,084.9	2,030.7	6,025.390492	49.662144
14	454.8	2,030.7	2,014.3	5,902.535789	49.662144
15	459.3	1,984.6	2,009.5	5,840.139367	49.662144
16	462.2	1,944.5	2,007	5,808.689815	49.723184
17	444.3	1,959.4	2,037.4	5,583.585241	49.662144
18	439.8	1,924.7	2,032	4,600.309219	49.723184
19	415.4	1,970.4	2,054.5	4,284.175305	49.662144
20	395.9	2,017.9	2,078.8	4,465.610452	49.723184
21	381	2,035.2	2,087.8	4,368.850989	49.662144
22	369.6	2,022.4	2,087.2	4,431.296047	49.723184
23	369.6	2,013.4	2,083.3	4,396.713842	49.662144
24	373.1	2,020.1	2,070.9	5,495.406226	49.662144
25	398.4	1,987.9	2,057.7	6,465.337384	49.234864

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
26	422.4	2,009.5	2,052.9	4,731.174601	49.234864
27	409.2	2,084	2,074.3	4,410.579262	49.295904
28	393.8	2,090.7	2,082.4	4,404.652009	48.929664
29	382.8	2,077.9	2,089.4	4,417.495652	48.990704
30	380.4	2,061.5	2,097.5	4,354.852712	48.990704
31	377.7	2,035.6	2,098.8	4,248.395697	49.051744
32	380.4	1,972.8	2,085.6	6,408.423095	49.051744
33	407.3	1,948.6	2,050.3	6,460.613676	48.990704
34	417.2	1,984.6	2,062.8	4,506.442851	49.051744
35	406.2	2,033.2	2,076.6	4,424.40123	-0.024416
36	395	2,027.5	2,096.4	4,375.833335	49.78224
37	385.7	2,014	2,104.2	4,560.317362	49.723184
38	379.4	2,011.8	2,107.8	4,499.663183	49.784224
39	377.8	2,005.7	2,095.2	5,079.693304	49.723184
40	397.2	1,977.4	2,077.2	6,623.939419	49.784224
41	421.8	1,986.6	2,063.1	4,902.304578	49.784224
42	411.9	2,061.9	2,068.5	4410.579262	49.723184
43	396.6	2,066.9	2,073.4	4,368.850989	49.723184
44	387.6	2,052.1	2,093.9	4,403.652009	49.723184
45	381.3	2,032.7	2,110.6	4,298.403758	49.723184
46	375.9	2,013.4	2,116	4,375.833335	49.662144
47	376.5	2,008.9	2,107.4	5,221.942733	49.662144
48	401.3	2,057	2,067.6	6,729.109663	0.036624
49	424.7	2,059.9	2,044.2	4,666.200704	49.417984
50	402	2,082	2,046.7	4458.768697	0.085456
51	380.6	2,084.5	2,071.4	4,431.296047	49.662144
52	375.2	2,073	2,090.1	4,226.782555	49.601104

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
53	373.6	2,053.2	2,104.2	4,284.175305	49.601104
54	371.8	2,033.2	2,111.2	4,205.058327	49.601104
55	379.2	1,988.8	2,085.8	6,451.155885	49.601104
56	410.9	2,108.8	2,049.3	6,326.918175	49.601104
57	416.3	2,073	2,060.6	4,540.189337	49.601104
58	401.5	2,104.2	2,070.5	4,431.296047	-0.024416
59	388.9	2,101.6	2,076.3	4,403.652009	-0.024416
60	382.6	2,085.6	2,098	4,354.852712	-0.024416
61	378.8	2,066.4	2,113.2	4,326.720294	-0.146496
62	375.2	2,046.4	2,117.7	5,019.233006	-0.085456
63	292.1	2,008.6	2,082.4	6,674.444991	-0.024416
64	421.3	2,030.4	2,058.6	5,274.297261	-0.024416
65	410.1	2,085.6	2,060.2	4,438.180152	49.540064
66	391.6	2,104.2	2,064	4,319.658562	49.601104
67	376.8	2,102.5	2,070.5	4,347.836673	49.540064
68	372.3	2,086.2	2,093.5	4,284.175305	49.601104
69	372.3	2,070.1	2,107	4,277.043329	-0.0244416
70	380.3	2,026.2	2,091	6,297.899899	49.601104
71	410	2,032	2,054.1	6,239.458487	49.601104
72	411.8	2,069.2	2,070.9	4,465.610452	49.601104
73	399	2,103.8	2,073.4	4,382.804557	49.540064
74	388	2,105.8	2,073	4,319.658562	49.540064
75	378.8	2,095.9	2,081.1	4,319.658562	-0.085456
76	371.4	2,081.1	2,096.8	4,298.403756	49.784224
77	368.9	2,057	2,102.9	5,400.138574	49.845264
78	392.1	2,030	2,065.1	6,465.337384	49.784224
79	411.4	2,043	2,049.6	4.451.916428	49.784224

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
80	399.2	2,081.7	2,069.2	4,368.850989	49.784224
81	387.8	2,084	2,090.7	4,326.720294	-0.085456
82	377.9	2,072.1	2,083.6	4,389.764709	49.356944
83	371.4	2,054.8	2,083.6	4,255.575664	49.295904
84	368.2	2,036.1	2,095.2	4,255.575684	49.295904
85	376.1	1,944.2	2,082	6,540.45274	49.295904
86	407.6	2,002.8	2,046.7	6,293.05051	48.990704
87	410	2,048	2,056.1	4,499.663183	48.990704
88	397.4	2,075.4	2,064	4,417.495652	48.990704
89	385.7	2,069.2	2,084	4,361.857466	48.990704
90	381.7	2,052.9	2,106.1	4,226.782555	48.990704
91	378.5	2,036.1	2,116.4	4,255.575684	48.990704
92	377.4	2,030.4	2,114.8	5,360.418617	48.990704
93	398.4	2,013.1	2,081.1	6,379.775553	48.990704
94	417	2,201.4	2,064	4,646.53137	48.990704
95	408	2,070.9	2,071.8	4,382.804557	49.540064
96	401.7	2,072.5	2,080.8	4,284.175305	49.479024
97	396.5	2,065.1	2,089.8	4,241.203554	49.479024
98	391.2	2,052.9	2,098.8	4,241.203554	49.479024
99	387.1	2,040.1	2,109.9	4,368.850989	49.540064
100	394.7	2,109.2	2,094.8	6,549.781589	49.540064
101	425.4	2,049.3	2,063.1	6336.561403	49.540064
102	428.7	2,108.3	2,064	4,389.764709	49.540064
103	416.8	2,128.6	2,078.2	4,340.809294	50.150464
104	406.7	2,127.9	2,090.7	4,305.500351	50.211504
105	398.6	2,120.5	2,094.8	4,319.658562	50.211504
106	391.1	2,107.4	2,093.5	4,277.043329	50.150464

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
107	384.4	2,093.5	2,094.3	4,326.720294	50.150464
108	380.8	2,076.3	2,093.5	4,933.343919	50.211504
109	401.7	2,057.4	2,077.9	6,596.227935	50.211504
110	428.1	2,070.5	2,055.7	4,718.251401	50.211504
111	417.7	2,104.5	2,072.5	4,319.658562	50.272544
112	406.5	2,118.9	2,095.2	4,296.403758	49.356944
113	397.9	2,126.7	2,111.5	4,319.658562	49.356944
114	390.3	2,118.9	2,124.3	4,333.77052	49.356944
115	384	2,101.3	2,126.3	4,312.585267	49.356944
116	390.2	2,081.1	2,098.4	6,278.479871	49.356944
117	419.9	2,104.5	2,064.4	6,125.887592	49.356944
118	420.4	2,138.4	2,063.5	4,382.804557	49.356944
119	409.6	2,163	2,062.4	4,417.495652	49.356944
120	414.3	2,091	2,067.3	4,769.734119	49.356944
121	407.3	2,099.3	2,077.2	4,277.043329	31.594304
122	398.6	2,107	2,076.6	5,097.691565	49.967344
123	398.3	2,061.5	2,084.5	5,349.015884	49.967344
124	417.3	2,096.4	2,072.5	6,341.377518	49.906304
125	435.5	2,120.2	2,962.4	4,633.372093	49.967344
126	420.4	2,164.3	2,071.8	4,639.956397	49.967344
127	428.9	2,082.7	2,052.5	6,185.402146	49.173824
128	433.4	2,064	2,092.6	4,613.562802	49.173824
129	421.3	2,085.3	2,110.6	5,394.4822	49.173824
130	411.9	2,060.6	2,114.8	4,298.403758	49.234864
131	408.5	2,029.1	2,098.8	6,288.197382	49.234864
132	433.4	2,033.6	2,062.4	6,075.846829	49.417984
133	429.4	2,100	2,055.7	4,506.442851	49.356944

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
134	411.6	2,131.9	2,054.5	4,354.852712	49.417984
135	396.6	2,138	2,070.5	4,354.852712	49.417984
136	393.4	2,087.2	2,067.6	6,085.887898	49.417984
137	396.5	2,057.7	2,098.8	4,347.836673	49.417984
138	389.3	2,058.6	2,107.8	5,523.113401	49.356944
139	411.2	,2050	2,070.5	6115.912194	49.295904
140	423.5	2,088.1	2,065.1	4,533.460136	49.295904
141	409.1	2,129.2	2,077.2	5,957l.158603	49.295904
142	416.4	2,084.5	2,075.4	4,587.017341	49.295904
143	401.7	2,100.4	2,082.4	4,319.658562	49.295904
144	390	2,099.7	2,089	4,410.579262	49.234864
145	382.4	2,093.9	2,100.4	4,326.720294	49.295904
146	380.6	2,049.3	2,103.3	4,499.663183	9.295904
147	386.7	2,027.5	2,081.7	6,249.236676	-0.207536
148	412.7	2,037.7	2,050	5,739.958017	48.746544
149	410.7	2,095.2	2,050.9	4,368.850989	48.746544
150	400.2	2,119.6	2,079.5	4,479.26261	48.807584
151	399	2,111.2	2,086.5	5,049.553645	48.807584
152	394.7	2,093.5	2,086.9	4,277.043329	48.807584
153	389.8	2,074.3	2,083.3	5,713.302546	48.807584
154	390.2	2,039.4	2,086.9	5,192.6288	46.807584
155	411.9	2,157.8	2,066.9	6,185.402146	48.990704
156	438.9	2,132.4	2,033.6	6,219.855993	48.990704
157	433.5	2,149	2,057.7	5,133.498783	48.990704
158	43.2	2,079.9	2,021.7	5,643.409134	48.990704
159	428.3	2,082.4	2,030.7	4,666.200704	48.868624
160	424.7	2,036.5	2,020.1	5,043.5041	48.990704

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
161	406.4	2,062.8	2,057.7	4,348.180152	48.990704
162	392	2,052.1	2,074.3	4,871.067452	48.990704
163	387.6	2,055.7	2,084.5	4,214.312185	48.990704
164	369.8	2,057.7	2,098	4,472.44174	48.990704
165	364.6	2,051.8	2,108.3	4,305.500351	48.990704
166	364.1	2,041.9	2,102.5	5,085.699802	48.990704
167	385.1	1,998.7	2,084.9	6.283.340505	48.990704
168	403.3	2,030.7	2,075	4,361.857466	-0.329616
169	395.2	2,084.9	2,074.3	4,269.89946	-0.329616
170	390.9	2,084	2,070.1	6,025.390492	49.295904
171	396.5	2,043	2,083.3	4,319.658562	49.295904
172	384.9	2,058.3	2,092.6	4,269.89944	49.295904
173	373.1	2,062.8	2,111.2	4,291.295429	49.234864
174	383.7	2,154.2	2,091	6,254.120038	-0.207536
175	416.6	2,246.7	2,061.9	6,170.577321	49.112784
176	441.5	2,162.3	2,063.1	6,413.185244	49.112784
177	461.4	2,106.1	2,056.1	6,331.741625	49.112784
178	474.2	2,083.6	2,071.4	5,061.631045	49.112784
179	347.3	1,966.1	2,021.7	5,979.615782	49.173824
180	375.6	1,968.3	2,027.8	6,312.425712	49.295904
181	390.7	2,020.8	2,040.6	4,526.720932	49.173824
182	384.8	2,055.7	2,046.7	4,403.652009	49.173824
183	382.2	2,064.4	2,060.2	4,319.658562	-0.146496
184	380.6	2,057.7	2,079.1	4,262.743578	48.807584
185	378.6	2,047.1	2,087.2	4,233.999194	48.807584
186	376.8	2,036.6	2,084.9	4,241.203554	48.807584
187	382.8	1,995.1	2,070.5	6,283.340505	48.807584

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
188	406.5	1,999.6	2,057.7	5,627.156602	48.807584
189	402.8	2,054.5	2,070.1	4,374.836673	48.868624
190	392.3	2,087.2	2,094.8	4,361.857466	-0.207536
191	383.7	2,100.9	2,099.3	4,277.043329	-0.207536
192	377.2	2,099.7	2,102.9	4,284.175305	-0.207536
193	371.6	2,090.1	2,099.3	4,389.764709	-0.207536
194	370.7	2,074.3	2,082.4	4,927.151694	-0.329616
195	391.1	2,055.7	2,084.5	6,322.091045	-0.329616
196	408.7	2,066.4	2,072.1	4,451.916428	-0.268576
197	399.2	2,109.6	2,098	4,410.579262	-0329616
198	399.9	2,084	2,089	4,633.372093	-0.329616
199	392.3	2,097.1	2,089	4,319.658562	-0.329616
200	383.9	2,100.4	2,090.7	4,269.89944	-0.268576
201	376.8	2,093.5	2,081.1	4,226.782555	-0.268576
202	379.2	2,047.1	2,077.5	6,065.789138	-0.329616
203	403.5	2,030.7	2,069.2	5,268.505783	-0.207536
204	399.3	2,073.4	2,077.5	4,361.857466	48.441344
205	390.7	2,100.9	2,098.4	4,970.335269	-0.268576
206	389.4	2,086.9	2,106.7	4,219.553573	-0.390656
207	384.4	2,082.4	2,101.3	4,146.570662	48.197184
208	381.9	2,070.1	2,093	4,168.599703	48.258224
209	380.1	2,050.3	2,081.7	5,019.233006	-0.2685676
210	397.9	2,003.2	2,075.4	6,263.875339	-0.329616
211	406.9	1,999.9	2,063.1	4,410.579262	-0.329616
212	397.9	2,028.2	2,093	4,347.836673	-0.329616
213	389.6	2,038.1	2,110.3	4,255.575684	-0.329616
214	383.3	2,031.1	2,108.3	4,124.423963	-.0329616

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
215	381.2	2,005.7	2,091.9	5,892.182272	-0.329616
216	390.7	1,960	2,076.3	4,284.175305	-0.329616
217	396.8	1,967.4	2,076.3	6,283.340505	-0.268576
218	423.5	2,002.1	2,065.1	5,637.996829	-0.329616
219	430.8	1,985.4	2,081.7	4,933.343919	-0.390656
220	421.1	2,001.6	2,084.5	6,070.820066	-0.329616
221	421.8	1,981.2	2,087.2	4,451.916428	48.807584
222	406.2	2,016	2,099.7	4,333.77052	-0.329616
223	393.9	2,031.1	2,103.3	4,340.809294	-0.268576
224	384.8	2,031.6	2,096.4	5,331,866061	48.929664
225	401.9	2,024.6	2,070.1	6,050.671255	48.929664
226	422.4	1,984.1	2,050.9	5,761.193598	48.990704
227	416.6	2,024.6	2,094.3	4,424.40123	48.990704
228	403.1	2,059	2,095.9	5,067.658951	49.051744
229	398.1	2,035.2	2,095.2	4,465.610452	48.807584
230	389.3	2,044.8	2,097.1	4,438.180152	48.868624
231	380.8	2,045.8	2,098.4	4,233.999194	48.868624
232	380.3	2,020.8	2,089.8	6,090.902225	48.868624
233	406	2,031.6	2,047.1	5,782.351193	48.868624
234	405.6	2,097.1	2,055.4	4,451916428	48.807584
235	398.6	2,090.7	2,054.5	5297.399856	48.868624
236	391.1	2,088.1	2,070.1	4,326.720294	48.868624
237	381.9	2,088.1	2,073.4	4,347.836673	48.8688624
238	382.6	2,081.7	2,076.6	4,226.782555	48.807584
239	382.6	2,070.9	2,081.7	4,057.258599	48.868624
240	380.4	2,058.3	2,083.6	4,049.727019	48.746544
241	389.6	2,026.6	2,086.5	6,455.886513	48.6855094

Time (minute)	Baghouse Inlet T °F 1OG-TE-7A	Secondary Chamber T °F 1IS-TE-5	Primary Chamber T °F 1IS-TE-2	Offgas Flow (acfm) 1OG-FE-2	Waste Feedrate (gpm) ISF-WT-1
242	412.1	2,032.7	2,072.1	4,659.653485	48.685504
243	411.2	2,088.5	2,089.4	4,298.403758	-0.207536
244	406.4	2,097.5	2,104.2	4,291.295429	48.868624
245	401.1	2,089.8	2,112.8	4,205.05837	-0.268576
246	396.1	2,0786.3	2,113.2	4,262.743578	49.356944
247	391.6	2,060.6	2,114.8	4,262.743578	49.356944
248	388.4	2,042.6	2,109.9	5,127.548278	49.295904
249	408	2,025.3	2,086.9	6,365.403434	49.295904
250	417.2	2,075	2,089	4,499.663183	-0.207536
251	409.2	2,102.2	2,107	4,326.720294	48.380304
Mean	398.168650794	2,061.58849206	2,079.35039683	4,927.3648998	39.218248444
Minimum	347.3	1,924.7	2,007	4,049.727019	-0.390656
Maximum	474.2	2,246.7	2,126.3	6,729.109663	50.272544

ATTACHMENT O

ASH GROVE CEMENT COMPANY RCRA PERMIT
SECTION A.15

(5 Sheets)

ASH GROVE CEMENT PERMIT
SECTION A.15

E.15 Environmental Monitoring

Background: The Permittee has demonstrated compliance witht he air emissions standards at 40 CFR § 266.102, which are the requirements that must be met in order for a cement plant to obtain a final permit to burn hazardous wastes. In addition to reviewing the Permittee's compliance with applicable air emission standards, and as part of the permit application review process, EPA has conducted a study, known as the Ash Grove Cement Compnay Multipathway Risk Assessment, to determine the effect of the Permittee's air emissions on human health. Based on the results of this study, and pursuant to EPA's statutory mandate to assure protection of human health and the environment, EPA has determined that the Permittee must conduct an environmental monitoring program to assess the impacts of the Permittee's emissions on the envioronment. The monitoring program includes measuring concentrations of mercury in fish and water in Santa Fe Lake and Allen Lake, both located approximately 3 kilometers south/southwest and north/northeast, respectively, of the facility, and measuring concentrations of mercury and thallium in soils at points surrounding the facility. In the event access to Allen Lake is not granted to Ash Grove by its owner, Ash Grove shall sample the water and fish in its reservoir at the northern edge of its property boundary.

All workplans, related correspondence, and results related to this monitoring program shall be submitted to EPA and KDHE, and shall be made available for public review in an information repository established at the City of Chanute Public Library, pursuant to 40 CFR § 270.30(m).

a. Fish and Water Monitoring

Withing sixty (60) days fo the effective date of this permit the Permittee shall submit, for review and approval by the Director, a consolidated workplan that describes, in detail, work to be completed by the Permittee to conduct an ongoing, periodic mercury fish tissue and water concentration monitoring program at Santa Fe Lake and Allen Lake. This monitoring program shall consist of sampling and alaysis of fist that are representative of the game fish population necessary to establish "baseline" mercury fish tissue concentrations and continued sampling and analysis of fish tissue necessary to identify trends that may be exhibited in mercury fish tissue concentrations. This data will be compared to the "benchmark" fish tissue mercury concentration identified in E.15.a.(3) of this permit.

(1) The Permittee shall conduct an ongoing fish tissue mercury concentration monitoring program of Santee Fe and Allen Lake that shall be designed and conducted in accordance with applicable methods found in "Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, Volume 1 - Fish Sampling and Analysis" EPA 823-R-93-002, August 1993; and EPA Region 7 Standard Operating Procedures No. 23334.18A, "Technical Considerations in the Design of Fish Collection Activities for Water Quality Assessments," May 1, 1991; No. 2334.13A "Sampling Fish for Tissue Residue Determinations," May 23, 1990; and No. 3110.7A "Edible Fish Tissue Processing," January 27, 1992.

(2) The contents of the workplan regarding an ongoing fish montioring program shall include the following:

(a) Proposed schedule for conducting the ongoing mercury fish tissue monitoring program;

(b) Discussion of proposed approach to ensure that representative samples of fish tissue from Santa Fe Lake and Allen Lake (or the Ash Grove plant reservoir) are analyzed in this study;

(c) Proposed analytical parameter selection, which shall include, at a minimum, the following:

1) Water Analyses

a) Air equilibrated pH
b) Field pH
c) Ambient temperature
d) Acid Neutralization Capacity
e) Dissolved Orgnaic Content
f) Conductance

2) Fish Analyses

a) Muscle tissue mercury concentration (filet, skin off)
b) Species
c) Length
d) Wet weight;

(d) Proposed sampling and analytical methods;

(e) Discussion of the proposed sample size necessary for conducting a statistically valid study;

(f) Discussion of proposed monitoring frequency sufficient to accound for any seasonal variations;

(g) Proposed sampling locations;

(h) Discussion of proposed methods for statistical analysis of mercury fish tissue concentration data to detect any trends present in mercury levles over time;

(i) Sampling and Analytical Data Quality Assurance Plan that includes and evaluation of the utility and necessity of “ultra clean” sample handling techniques; and

(j) Description of proposed format for reporting of results which shall be made to EPA and the Kansas Department of Health and Environment, and to a document repository established at the City of Chanute Public Library.

(3) Benchmark Mercury Concentration Values

(a) Mercury fish tissues concentrations and concentration trends measured in this ongoing sampling program will be evaluated against a benchmark value of 0.5 mg/kg on a fresh weight basis.

(b) Upon determination by the Director that mercury fish tissue concentrations are at or above the benchmark value defined in this permit, or on a verified trend that indicates that the benchmark values will be reached during the term of this permit, the Director will notify the Permittee that is shall undertake the following requirements:

1) Within two hundred seventy (270) days of such notification the Permittee shall complete a mercury emissions from the burning ofhazardousw waste to a level approved by the Director. In evaluating the necessary mercury emission reductions, the Director will consider the following, at a minimum: The reduction in mercury inputs into Santa Fe Lake and Allen Lake necessary to control mercury fish tissue concentrations, the Permittee's contribution to mercury fish tissue concentrations, reductions in mercury feed rate limits governed by this permit, and the effectiveness of process modifications and/or air pollution control devices in reducing mercury air emissions. The Director may consider any other factors whic he/she may consider relevant in evaluating necessary mercury emission reductions.

(4) Termination of Fish Monitoring Program

The Director may notify the Permittee that the fish monitoring program may be terminated for the following reasons:

(a) The Permittee demonstrates compliance with revised mercury emission standards under the Resource Conservation and Recovery Act and the Clean Air Act, which are demonstrated to have no potential adverse impact on human health through fish consumption; or

(b) Surface Soil Monitoring

Within one hundred twenty (120) days of the effective date of this permit the Permittee shall submit, for the review and approval by the Director, a consolidated workplan that describes, in detail, work to be completed by the Permittee to conduct an ongoing, periodic mercury and thallium surface soil monitoring program. This monitoring program shall consist of sampling and analysis of soil for mercury and thallium at locations surrounding the Ash Grove plant that are representative of the residential areas south of the Permittee's facility boundary, as well as sampling at locations in the Chanute area that are representative of naturally occurring or "background" mercury and thallium soil concentrations. EPA's modeling of Ash Grove stack emissions indicates that maximum soil concentrations in residential areas due to stack emissions impacts occurs in an area 300 to 500 meters south of the Ash Grove smoke stack. The Permittee must take this modeling information into account when preparing this workplan. Soil sampling and analysis should be done ina aphased approach, with the purpose of Phase I being to establish baseline mercury and thallium surface soil concentrations. This will consist of two years of quarterly samples at the locations designated in the approved workplan. The purpose of quarterly sampling is to detect seasonal variation in soil concentrations, if any. Phase II of this monitoring program will consist of an annual soil sampling event at the timte the highest baseline mercury and thallium surface soil concentrations were observed during Phase I. This

(1) The Permittee shall conduct an ongoing surface soil mercury and thallium concentration monitoring program at locations surrounding the Ash Grove plant that are representative of the residential areas south of the Permittee's facility boundary.

(2) The contents of the work plan for performing an ongoing soil monitoring program shall include the following:

(a) Proposed schedule for conducting the ongoing mercury and thallium surface soil monitoring program;

(b) Discussion of proposed approach to ensure that representative samples of surface soils in residential areas south of the Permittee's facility are analyzed in this study, as well as an approach to determine naturally occurring, or "background," concentrations in the Chanute area;

(c) Proposed-sampling and analytical methods;

(d) Discussion of the proposed sample size/methodology necessary for conducting a statistically valid study, including the exposure/averaging areas for residences; for example, 0.25 acres;

(f) Discussion of proposed methods for statistical analysis of mercury and thallium surface soil concentration data to determine the true mean concentrations within the exposure/averaging areas and any trends present in these concentrations over time;

(g) Sampling and Analytical Data Quality Assurance Plan; and

(h) Description of proposed format for reporting of results which shall be made to EPA and the Kansas Department of Health and Environment, and to a document repository established at the City of Chanute Public Library.

(3) Mercury and thallium soil concentration data and concentration trends measured in this ongoing sampling program must be evaluated against the naturally occurring background values for the Chanute, Kansas area established in this monitoring program, and the following health based benchmark values:

Mercury - 5.6 mg/kg

Thallium - 1.5 mg/kg

(4) Upon determination by the Director that mercury or thallium surface soil concentrations are at or above the benchmark values defined in this permit or ona verified trend that indicates that the benchmark values will be reached during the term of this pemit, the Director will notify the Permittee of the following:

(a) Reductions in permitted annual average hazardous waste feed rates of mercury and/or thallium that shall remain in effect until the Permittee

(b) Opportunity to conduct, at the Permittee's discretion, a mercury and/or thallium source to receptor study, the design of which shall be approved by the Director, to quantify the Permittee's constribution to mercury and/or thallium surface soil concentrations in the exposure/averaging areas; and

(c) Within three (3) years the Permittee shall complete actions nec3essary to reduce mercury and/or thallium emissions from the burning of hazardous waste to a level approved by the Director. In evaluating the necessary mercury emission reductions, the Director will consider the following at a minimum: the reduction in mercury and/or thallium emissions necessary to control mercury and/or thallium surface soil concentrations in the exposure/averaging areas, the Permittee's contribution to mercury surface soil concentratinos, furhter reductions in mercury and/or thallium feed rate limits governed by this permit, and the effectiveness of process modifications and/or air pullution control devices in reducing mercury and/or thallium air emissions. The Director may consider any othe rfactors which he/she may consider relevant in evaluating necessary mercury and/or thallium emission reductions.

(5) Termination of Surface soil Monitoring Program

The Director may notify the Permittee that the surface soil monitoring program may be terminated for the following reasons:

(a) The Permittee demonstrates compliance with revised mercury and/or thallium emission standards under the Resource Conservation and Recovery Act and the Clean Air Act, which are demonstrated to have no potential adverse impact on human health through exposures, direct and indirect, to surface soils; or

(b) The Director determines that data collected by this monitoring program demonstrate that mercury and/or thallium surface soil concentrations are below benchmark values at a 95% confidence level, and that the results of trend analysis, if a valid trend is observed, indicate benchmark levels will not be reached during the term of Part II of this permit.

ATTACHMENT P

ANNISTON CHEMICAL DEMILITARIZATION FACILITY FINAL RCRA PERMIT SECTION VII.B

(8 Sheets)

VII.B LIQUID INCINERATOR (LIC)

The Liquid Incinerator (LIC) shall be installed and used to burn liquid wastes. The LIC is provided with:

A Pollution Abatement System that includes a quench tower, venturi scrubber, packed-bed scrubber tower, carbon bed filter and demister.

Both combustion chambers of the LIC are refractory-lined and are equipped with natural gas burners which are used to preheat and to maintain the required combustion temperature in each chamber while burning the liquid wastes. The stack emissions shall be monitored for the presence of chemical agents and other emissions. The LIC shall shut down automatically when the monitor detects the presence of chemical agent at the allowable stack concentration level. (See Condition VII.B.2.vii. of this Permit)

1. MAINTENANCE

i. All process monitors required, pursuant to Condition VII.B.4 of this Permit, shall be equipped with alarms operated to warn of deviation, or immient dveiation, from the limits specified in Condition VII.B.4. of this Permit.

ii. The Permittee shall install and test all process monitoring and control instrumentation for the LIC in accordance with the design plans in Volume II, Section D-5 and Volume II, Attachment D-3, Section D-5b of the Application and in accordance with the calibration, performance specifications and maintenance procedures contained in Table 7-1 of this Permit.

iii. Modifications to the design plans and specifications in the Application for all incinerators shall be allowed only in accordance with Condition II.A.2. of this Permit.

iv. The Permittee shall maintain the LIC such that, when operated in accordance with the operating requirements specified in this Permit, it shall meet the performance standards specified in Conditions VII.B.2.i through VII.B.2.vii. of this Permit.

v. All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminante shall be established.

2. PERFORMANCE STANDARDS

i. The LIC must achieve and maintain a destruction and removal efficiency (DRE) of 99.9999% for the chemical agent. The DRE shall be calculated by the method specified in ADEM Admin. Code R. 335-14-5-.15(4)(a)1.

ii. The particulate matter emissions from the common stack, corrected to 7% oxygen in accordance with the formula given below (ADEM Admin. Code R. 335-14-5-.15(4)(c)), shall not exceed 34.3 mg/dscm (0.015 grains/dscf).

$$P_c = P_m \times 14 / (21 - Y)$$

Where: P_c = corrected concentration of particulate matter
P_m = measured concentration of particulate matter
Y = measured O_2 in the stack gas

iii. The hydrogen chloride (HCl) emission from the LIC shall not exceed * grams per second, or one (1) percent of the total HCl in the combustion gas streams from the LIC secondary combustion chamber exhaust duct prior to entering the pollution control equipment, whichever is less. The HCl emission limit shall be met by limiting the feed rate of chlorine/chloride into the LIC as specified in Condition VII.B.3.iii of this Pemit.

iv. The following metal emission rates from the LIC shall not be exceeded:

Antimony	*	gms/sec	Arsenic	*	gms/sec
Barium	*	gms/sec	Beryllium	*	gms/sec
Boron	*	gms/sec	Cadmium	*	gms/sec
Chromium	*	gms/sec	Cobalt	*	gms/sec
Copper	*	gms/sec	Lead	*	gms/sec
Manganese	*	gms/sec	Mercury	*	gms/sec
Nickel	*	gms/sec	Phosphorus	*	gms/sec
Selenium	*	gms/sec	Silver	*	gms/sec
Thallium	*	gms/sec	Tin	*	gms/sec
Vanadium	*	gms/sec	Zinc	*	gms/sec

The above emission limits shall be met by limiting the feed rate of each metal into the LIC as specified in Condition VII.B.3.iii of this Permit.

v. The following emission rates from the LIC shall not be exceeded:

HCl	*	gms/sec	CL_2	*	gms/sec
HF	*	gms/sec	Tetra CDD	*	gms/sec
Penta CDD	*	gms/sec	Hexa CDD	*	gms/sec
Hepta CDD	*	gms/sec	Octa CDD	*	gms/sec
Tetra CDF	*	gms/sec	Penta CDF	*	gms/sec
Hexa CDF	*	gms/sec	Hepta CDF	*	gms/sec
Octa CDF	*	gms/sec	Benzene	*	gms/sec
Vinyl Chloride	*	gms/sec			

The above emission limits shall be met by limiting the overall feed rate into the LIC.

vi. The Permittee shall control emissions of products of incomplete combustion (PICs) from the common stack such that the carbon monoxide (CO) level in the common stack, corrected to 7% oxygen in accordance with the formula given below, shall not exceed 100 parts per million (ppm), dry volume, over an hourly rolling average.

$$Co_c = Co_m \times (21 - 7) / (21 - O_m)$$

Where: CO_c = corrected CO ppm (dry volume)
Co_m = measured CO ppm (dry volume)
O_m = measured % O_2 (dry volume)

vii. The Permittee shall monitor emissions of chemical agents being treated from the LIC using an ACAMS installed in the duct work feeding the common stack. The emission levels shall not exceed the following concentrations:

	Chemical Agent - Concentration (mg/m)		
	VX	GB	HD/HT
Maximum Hourly Rolling Average Stack Emission:	0.00006	0.00006	0.006
Maximum Instantaneous Stack Emission:	0.00003	0.00003	0.003

viii. Compliance with the operating conditions specified in Condition VII.B.4. of this Permit, shall be regarded as compliance with the required performance standards identified in Conditions VII.B.2.i. through VII.B.2.vii. of this Permit. However, if it is determined during the effective period of this Permit that compliance with the operating conditions in Condition VII.B.4. of this Permit is not sufficient to ensure compliance with the performance standards specified in Conditions VII.B.2.1. through VII.B.2.vii. of this Permit, the permit may be modified, revoked, or reissued, pursuant to ADEM Admin. Code R. 335-14-8-.04(2) or (3).

3. LIMITATION ON WASTE FEED

i. Except during the short-term periods specified in Conditions VI.B. of this Permit for shakedown, trial burn, and post-trial burn, the Permittee shall inccinerate only the following hazardous wastes in the LIC in compliance with the operating requirements specified in Condition VII.B.4. of this Permit.

DESCRIPTION OF HAZARDOUS WASTES	MAX. FEED RATE HOURLY ROLLING AVERAGE	MAX. FEED RATE ONE MINUTE AVERAGE (Hourly / 60) (1.1)
Chemical Agents:		
VX	*lbs/hr.	*lbs/min.
GB	*lbs/hr.	*lbs/min
HD	*lbs/hr.	*lbs/min
HT	*lbs/hr.	*lbs/min
Decontamination Solution, and Monitoring Support Building And Laboratory, Aqueous Liquid Wastes:	*lbs/hr.	*lbs/min

ii. The spent contamination solution and the Monitoring Support Building and Laboratory aqueous liquid waste shall be fed only into the secondary combustion chamber of the LIC with, or without, the chemical agent feed to the LIC primary combustion chamber.

iii. The feed rates of metal and chlorine to the LIC based on an hourly rolling average shall not exceed the following limits:

Antimony	*	lbs/hr	Arsenic	*	lbs/hr
Barium	*	lbs/hr	Beryllium	*	lbs/hr
Boron	*	lbs/hr	Cadmium	*	lbs/hr
Chromium	*	lbs/hr	Cobalt	*	lbs/hr
Copper	*	lbs/hr	Lead	*	lbs/hr
Manganese	*	lbs/hr	Mercury	*	lbs/hr
Nickel	*	lbs/hr	Phosphorus	*	lbs/hr
Selenium	*	lbs/hr	Silver	*	lbs/hr
Thallium	*	lbs/hr	Tin	*	lbs/hr
Vanadium	*	lbs/hr	Zinc	*	lbs/hr
Cl	*	lbs/hr			

iv. The Permittee shall conduct sufficient analysis of the wate treated in the LIC to verify that the waste feed is within the physical and chemical composition limits specified in this permit, in accordance with the Waste Analysis Plan in Attachment 2 of this Permit.

4. OPERATING CONDITIONS

i. During normal operations, the Permittee shall operate the LIC in order to maintain the system and process parameters listed in Table 7-1 of this Permit within the ranges or setpoints specified in Table 7-1 of this Permit.

ii. During normal operations, the Permittee shall operate the AWFCO systems, specified in Table 7-2 of this Permit, to automatically cut off and/or lock out the hazardous waste feed to the LIC when the monitored operating conditions deviate from the setpoints specified in Table 7-2 of this permit.

iii. The Permittee shall not burn fuel and/or chemical agent in the primary combustion chamber of the LIC until the secondary combustion chamber of the LIC is within the operating parameters in Conditions VII.B.4.i. and ii. of this Permit.

iv. During startup, the Permittee shall not burn fuel and/or chemical agent in the LIC or purge the LIC until agent concentration within the room housing the LIC primary chamber is below ASC.

5. MONITORING REQUIREMENTS

i. The Permittee shall maintain, calibrate, and operate process monitoring, control, and recording equipment as specified in Table 7-1 and 7-2 of this Permit, while incinerating hazardous waste.

ii. Hazardous wastes shall not be fed to the LIC if any of the monitoring instruments listed in Table 7-1 and -2 of this Permit fail to operate properly.

6. WASTE FEED CUT-OFF REQUIREMENTS

i. The Permittee shall operate the systems, specified in Table 7-2 of this Permit, to automatically cut off and/or lock-out the hazardous waste feed to the LIC when the monitored operating conditions deviate from the setpoints specified in Table 7-2 of this Permit. Waste feed may not restart until the parameter(s) which caused the feed cutoff or lockout is/are restored to permit limits and all other parameters are within permit limits.

ii. In the event of a malfunction of the AWFCOs listed in Table 7-2 of this Permit, the Permittee shall immediately, manually, cut off and/or lockout the waste feed, and perform staged shutdown of the LIC in accordance with the approved procedures specified in Volume II, Section D-5 and Volume VIII, Attachment D-3, Section D-5b of the Application. The Permittee shall not startup the incinerator until the problem causing the malfunction has been identified and corrected. Waste feed may not restart until the parameter(s) which caused the feed cutoff or lockout is/are restored to permit limits and all other parameters are within permit limits.

iv. If the number of automatic waste feed cutoffs from an individual paramater on Table 7-2 for the LIC is activated greater than twice within any operating day, the Permittee shall be required to, at a minimum, verbally provide to the Department the information required in Condition VII.A.7.ii. of this Permit by the close of the following business day.