

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	354
4	EPA ID No.	MID000724724
5	Facility Name	DOW CHEMICAL CO.
6	Facility Location	
7	City	MIDLAND
8	State	MI
9	Unit ID Name/No.	UNIT 830
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, afterburner. Kiln has 14' diameter, 60' long
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	QC/AS/VS/DM/IWS
18	APCS General Class	WQ, LEWS, HEWS, IWS
19	APCS Characteristics	Quench, Acid Scrubber, Venturi Scrubber, Demister, Ionizing Wet Scrubber (Ceilcote, 2 stages)
20	Hazardous Wastes	Liq, sludge, solid
21	Haz Waste Description	
22	Supplemental Fuel	Oil
23		DIESEL OIL
24		
25	Stack Characteristics	
26	Diameter (ft)	3.0
27	Height (ft)	200.0
28	Gas Velocity (ft/sec)	25.3
29	Gas Temperature (°F)	140.0
30		
31	Permitting Status	
32	HWC Burn Status	(Date if Termi Closing down Kiln Unit 703 (EPA ID No. 353), consolidating with ID 354.

	B	C
1	Condition Description	
2		
3	354C1	
4		
5	Report Name/Date	830 Incinerator Trial Burn Report, ID # MID 000 724, Summary of Results and Program Description, Dow Chemical Company, March 1992
6	Report Prepare	
7	Testing Firm	
8	Cond Descr	Trial burn, NORMAL KILN TEMP, HIGH CL AND METAL FEED, metals results considered invalid shice lab failed to analyze the EPA audit sample
9	Testing Dates	December 4-5, 1991
10	Cond Dates	Dec-91
11		
12	354C2	
13		
14	Report Name/Date	830 Incinerator Trial Burn Report, ID # MID 000 724, Summary of Results and Program Description, Dow Chemical Company, March 1992
15	Report Prepare	
16	Testing Firm	
17	Cond Descr	Trial burn, LOW KILN TEMP, HIGH CL AND SOLIDS FEED
18	Testing Dates	December 12-13, 1991
19	Cond Dates	Dec-91
20		
21	354C3	
22		
23	Report Name/Date	830 Incinerator Trial Burn Report, ID # MID 000 724, Summary of Results and Program Description, Dow Chemical Company, March 1992
24	Report Prepare	
25	Testing Firm	
26	Cond Descr	Trial burn, LOW KILN TEMP,MAX ASH&CONTAINER BTU FEED
27	Testing Dates	December 9-10, 1991
28	Cond Dates	Dec-91
29		
30	354C4	
31		
32	Report Name/Date	830 Incinerator Trial Burn Report, ID # MID 000 724, Summary of Results and Program Description, Dow Chemical Company, March 1992
33	Report Prepare	
34	Testing Firm	
35	Cond Descr	Trial burn, NORMAL KILN TEMP, MAX CHLOROSILANES FEED
36	Testing Dates	December 17-18, 1991
37	Cond Dates	Dec-91
38		
39	354C5	
40		
41	Report Name/Date	830 Incinerator Trial Burn Report, ID # MID 000 724, Summary of Results and Program Description, Dow Chemical Company, March 1992
42	Report Prepare	
43	Testing Firm	
44	Cond Descr	Trial burn, METALS RE-TEST; HIGH CHLORINE
45	Testing Dates	August 4-5, 1992
46	Cond Dates	Aug-92

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Stack Gas Emissions 2															
2																
3																
4	354C1					R1		R2		R3		R4		R5		Cond Avg
5																
6	PM	E1	gr/dscf	y		0.0002		0.0012		0.0001						0.0005
7	CO (RA)	E1	ppmv	y		3.0		2.9		3.1		3.0				3.0
8	HCl	E1	ppmv	y		1.5		1.7		0.7		0.7				1.1
9	Cl2	E1	ppmv	y		1.8		1.3		5.4		4.6				3.3
10	Total Chlorine	E1	ppmv	y		5.1		4.3		11.4		10.0				7.7
11	Antimony	E1	ug/dscm	y	nd	4.8	nd	4.7	nd	4.7	nd	4.5				4.7
12	Arsenic	E1	ug/dscm	y	nd	4.8	nd	4.7	nd	4.7	nd	4.5				4.7
13	Barium	E1	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3		0.3				0.3
14	Cadmium	E1	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3	nd	0.3				0.3
15	Chromium	E1	ug/dscm	y	nd	0.5	nd	0.5	nd	0.5	nd	0.5				0.5
16	Lead	E1	ug/dscm	y		2.7	nd	2.0	nd	2.0		1.9				2.2
17	Mercury	E1	ug/dscm	y		1.1		3.4	nd	0.6	nd	0.6				1.4
18	Silver	E1	ug/dscm	y	nd	1.3	nd	1.3	nd	1.4	nd	1.3				1.3
19	SVM	E1	ug/dscm	y		3.1		2.4		2.4		2.3				2.5
20	LVM	E1	ug/dscm	y		5.3		5.3		5.3		5.0				5.2
21	metals results not considered valid since lab failed to analyze the EPA audit sample															
22	Sampling Train	PM/HCl	E1													
23	Stack Gas Flowrate		dscfm			24900.0		24500.0		24600.0		24800.0				
24	O2		%			11.8		11.5		12.1		11.7				
25	Moisture		%			2.4		2.3		1.7		1.9				
26	Temperature		°F			75.0		74.0		67.0		69.0				
27																
28	Carbon Tetrachloride	E1	%			99.99978		99.99967		99.99968		99.99961				
29	Monochlorobenzene	E1	%			99.99983		99.99983		99.99984		99.99984				
30																
31	354C2					R1		R2		R3		R4		R5		Cond Avg
32																
33	PM	E1	gr/dscf	y		0.0018		0.0007		0.0006		0.0004				0.0009
34	CO (RA)	E1	ppmv	y		2.8		1.4		2.8		4.1				2.8
35	HCl	E1	ppmv	y		0.3		0.3		0.4		0.3				0.3
36	Cl2	E1	ppmv	y		1.1		0.9		1.0		1.0				1.0
37	Total Chlorine	E1	ppmv	y		2.5		2.1		2.4		2.4				2.4
38																
39	Sampling Train	PM/HCl	E1													
40	Stack Gas Flowrate		dscfm			25300.0		25300.0		24500.0		24400.0				
41	O2		%			11.1		10.8		11.1		10.8				
42	Moisture		%			4.0		4.4		4.1		3.7				
43	Temperature		°F			86.0		92.0		91.0		88.0				
44																
45	Carbon Tetrachloride	E1	%			99.99998		99.99998		99.99997		99.99998				
46																
47	354C3					R1		R2		R3		R4		R5		Cond Avg
48																
49	PM	E1	gr/dscf	y		0.0011		0.0017		0.0017		0.0011				0.0014
50	CO (RA)	E1	ppmv	y		4.5		4.4		15.2		1.5				6.4
51	HCl	E1	ppmv	y		0.2		0.2		0.2		0.2				0.2
52	Cl2	E1	ppmv	y		0.1		0.1		0.1		0.1				0.1
53	Total Chlorine	E1	ppmv	y		0.3		0.3		0.4		0.4				0.4
54																
55	Carbon Tetrachloride	E1	%			99.9999		99.99995		99.99994		99.99994				
56	Monochlorobenzene	E1	%			99.99986		99.99987		99.99986		99.99986				
57																
58	Sampling Train	PM/HCl	E1													
59	Stack Gas Flowrate		dscfm			25300.0		26200.0		25800.0		25400.0				
60	O2		%			11.7		11.4		11.8		11.7				
61	Moisture		%			4.7		4.7		4.2		4.2				
62	Temperature		°F			95.0		96.0		92.0		90.0				
63																
64	354C4					R1		R2		R3		R4		R5		Cond Avg
65																
66	PM	E1	gr/dscf	y		0.0366		0.0330		0.0226		0.0188		0.0167		0.0255
67	CO (RA)	E1	ppmv	y		1.5		1.5		2.8		1.4		1.39		1.7
68	HCl	E1	ppmv	y		0.8		0.8		0.7		0.5		0.51		0.7
69	Cl2	E1	ppmv	y		0.5		0.3		0.8		0.0		0.10		0.3
70	Total Chlorine	E1	ppmv	y		1.7		1.4		2.2		0.6		0.7		1.3
71																

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
72	Sampling Train	PM/HCl	E1													
73	Stack Gas Flowrate		dscfm			25900.0		26900.0		25400.0		26200.0		25300.0		
74	O2		%			11.8		11.9		11.1		11.1		10.9		
75	Moisture		%			5.5		6.3		5.5		5.8		5.1		
76	Temperature		°F			92.0		96.0		90.0		93.0		92.0		
77																
78	354C5					R1		R2		R3		R4		R5		Cond Avg
79																
80	Antimony	E1	ug/dscm	y	nd	2.5		1.9		3.3		2.8				2.6
81	Arsenic	E1	ug/dscm	y		0.6		0.6		0.6		0.5				0.6
82	Barium	E1	ug/dscm	y		5.7		4.8		5.4		5.5				5.3
83	Cadmium	E1	ug/dscm	y		10.5		9.9		8.8		6.5				8.9
84	Chromium	E1	ug/dscm	y		4.2		3.7		6.9		3.3				4.5
85	Lead	E1	ug/dscm	y		213.1		158.4		180.3		144.1				174.0
86	Mercury	E1	ug/dscm	y		44.3		35.2		49.8		41.6				42.7
87	Silver	E1	ug/dscm	y		5.5		5.4		4.3		1.1				4.1
88	SVM	E1	ug/dscm	y		223.6		168.3		189.1		150.7				182.9
89	LVM	E1	ug/dscm	y		4.8		4.3		7.5		3.9				5.1
90																
91	Sampling Train	Metals	E1													
92	Stack Gas Flowrate		dscfm			25800.0		25100.0		25200.0		25300.0				
93	O2		%			10.4		10.7		10.5		10.8				
94	Moisture		%			18.1		18.1		17.7		19.1				
95	Temperature		°F			140.0		140.0		137.0		143.0				

	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	AB	AC			
1	Feedstream 2																														
2																															
3																															
4	354C1		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4						
5																															
6	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3		F3				
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				
8	Feed Class 2																														
9	Feedstream Description	Burner 1 Diesel Burner 1 Dies Burner 1 Diese Burner 1 Diesel Burner 4 Diest Burner 4 Diese Burner 4 Diese Burner 4 Diesel Burner 2 Diesel Burner 2 Diesel Burner 2 Diese Burner 2 Diesel PO																													
10	Feed Rate		lb/hr																												
11	Heating Value		Btu/lb																												
12	Chlorine		lb/hr		753		761		893		902		811		846		792		761		753		761		901		902				
13	Antimony		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
14	Arsenic		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
15	Ash		lb/hr																												
16	Barium		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
17	Cadmium		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
18	Chromium		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
19	Lead		lb/hr		0.000405		0.000465		0.000465		0.0006912		0.000441		0.00045		0.000413		0.000583		0.00041		0.000405		0.00047		0.0006912				
20	Mercury		lb/hr		0.000162		0.000186		0.000186		0.000192		0.000176		0.00018		0.000165		0.000162		0.000164		0.000162		0.000188		0.000192				
21	Silver		lb/hr		0.000324		0.000372		0.000372		0.000384		0.000353		0.00036		0.00033		0.000324		0.000328		0.000324		0.000376		0.000384				
22																															
23	Stack Gas Flowrate		dscfm																												
24	Oxygen		%																												
25																															
26	Feedrate MTEC Calculations																														
27	Chlorine		ug/dscm																												
28	Antimony		ug/dscm																												
29	Arsenic		ug/dscm																												
30	Ash		ug/dscm																												
31	Barium		ug/dscm																												
32	Cadmium		ug/dscm																												
33	Chromium		ug/dscm																												
34	Lead		ug/dscm																												
35	Mercury		ug/dscm																												
36	Silver		ug/dscm																												
37																															
38	SVM		ug/dscm																												
39	LVM		ug/dscm																												
40																															
41																															
42																															
43	354C2		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4						
44																															
45	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3		F3				
46	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				
47	Feed Class 2																														
48	Feedstream Description	Burner 1 Diesel POHC Burner 4 Diesel POHC Burner 2 Diesel POHC																													
49	Ash																														
50	Chlorine		lb/hr		335		327		338		341		594		581		581		602		335		327		338		359				
51	Feed Rate																														
52	Heating Value																														
53																															
54	Stack Gas Flowrate		dscfm																												
55	Oxygen		%																												
56																															
57	Feedrate MTEC Calculations																														
58	Chlorine		ug/dscm																												
59																															
60	354C3		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4						

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	
1	Feedstream 2																												
2																													
3																													
4	354C1	R1	R2	R3	R4	R1	R2	R3	R4	Cond Avg	R1	R2	R3	R4	Cond Avg														
5																													
6	Feedstream Number	F4	F4	F4	F4	F5	F5	F5	F5	F5																			
7	Feed Class	Solid HW?	Solid HW	Solid HW	Solid HW	Total	Total	Total	Total	Total																			
8	Feed Class 2											Total	Total	Total	Total	Total	HW	HW	HW	HW	HW								
9	Feedstream Description	All chamber waste	All chamber wa	All chamber wa	All chamber wa	Total	Total	Total	Total	Total																			
10	Feed Rate																												
11	Heating Value																												
12	Chlorine					2537	2573	2802	2781																				
13	Antimony	0.10339574	0.103175	0.103175	0.097223	0.1033	0.1031	0.1031	0.0971																				
14	Arsenic	0.08333388	0.086200	0.085538	0.085538	0.0833	0.0861	0.0855	0.0855																				
15	Ash																												
16	Barium	0.20590964	0.201721	0.194887	0.204146	0.2057	0.2015	0.1947	0.2040																				
17	Cadmium	0.1168438	0.129630	0.124780	0.126103	0.1167	0.1295	0.1247	0.1260																				
18	Chromium	0.6371294	0.751769	0.758382	0.826725	0.6372	0.7507	0.7568	0.8269																				
19	Lead	1.3205554	1.587312	1.294100	1.633609	1.3200	1.5850	1.2923	1.6313																				
20	Mercury	0.11023	0.110450	0.110010	0.104719	0.1101	0.1104	0.1099	0.1046																				
21	Silver	0.1069231	0.106482	0.106703	0.100309	0.1068	0.1064	0.1066	0.1002																				
22																													
23	Stack Gas Flowrate					24900	24500	24600	24800																				
24	Oxygen					11.8	11.5	12.1	11.7																				
25																													
26	Feedrate MTEC Calculatio																												
27	Chlorine					41455246	41380554	47905924	45134908	43969158	41455246	41380554	47905924	45134908															
28	Antimony					1688	1658	1762	1577	1671	1688	1658	1762	1577															
29	Arsenic					1360	1385	1461	1387	1398	1360	1385	1461	1387															
30	Ash																												
31	Barium					3362	3241	3329	3310	3.31E+03	3.36E+03	3.24E+03	3.33E+03	3.31E+03															
32	Cadmium					1908	2083	2131	2045	2.04E+03	1.91E+03	2.08E+03	2.13E+03	2.04E+03															
33	Chromium					10412	12073	12940	13420	1.22E+04	1.04E+04	1.21E+04	1.29E+04	1.34E+04															
34	Lead					21570	25491	22094	26475	2.39E+04	2.16E+04	2.55E+04	2.21E+04	2.65E+04															
35	Mercury					1800	1775	1879	1698	1.79E+03	1.80E+03	1.77E+03	1.88E+03	1.70E+03															
36	Silver					1746	1711	1823	1627	1.73E+03	1.75E+03	1.71E+03	1.82E+03	1.63E+03															
37																													
38	SVM					23477	27574	24226	28520	25949	2.35E+04	2.76E+04	2.42E+04	2.85E+04															
39	LVM					11773	13458	14401	14807	13610	1.18E+04	1.35E+04	1.44E+04	1.48E+04															
40																													
41																													
42																													
43	354C2	R1	R2	R3	R4	R1	R2	R3	R4	R5	Cond Avg																		
44																													
45	Feedstream Number					F4	F4	F4	F4	F4	F4																		
46	Feed Class					Total	Total	Total	Total	Total	Total																		
47	Feed Class 2					Total	Total	Total	Total	Total	Total																		
48	Feedstream Description	All chamber waste					Total	Total	Total	Total	Total	Total																	
49	Ash																												
50	Chlorine					2093	2041	2062	2093																				
51	Feed Rate																												
52	Heating Value																												
53																													
54	Stack Gas Flowrate					25300	25300	24500	24400																				
55	Oxygen					11.1	10.8	11.1	10.8																				
56																													
57	Feedrate MTEC Calculatio																												
58	Chlorine					3.13E+07	2.96E+07	3.18E+07	3.15E+07	3.10E+07																			
59																													
60	354C3	R1	R2	R3	R4	R1	R2	R3	R4	R5	Cond Avg																		

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC		
61																														
62	Feedstream Number				F1	F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3		
63	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		
64	Feed Class 2																													
65	Feedstream Description				Burner 1 Diesel POHC					Burner 4 Diesel POHC					Burner 2 Diesel POHC															
66	Ash		lb/hr																											
67	Chlorine		lb/hr																											
68	Feed Rate																													
69	Heating Value																													
70																														
71	Stack Gas Flowrate		dscfm																											
72	Oxygen		%																											
73																														
74	Feedrate MTEC Calculations																													
75	Ash		mg/dscm																											
76	Chlorine		ug/dscm																											
77																														
78																														
79	354C4				R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4		
80																														
81	Feedstream Number				F1	F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3		
82	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		
83	Feed Class 2																													
84	Feedstream Description				Burner 1 Diesel POHC					Burner 4 Diesel POHC					Burner 2 Diesel POHC															
85	Ash																													
86	Feed Rate																													
87	Heating Value																													
88																														
89	Stack Gas Flowrate		dscfm																											
90	Oxygen		%																											
91																														
92	Feedrate MTEC Calculations																													
93	Ash		mg/dscm																											
94																														
95																														
96																														
97	354C5				R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4		
98																														
99	Feedstream Number				F1	F1	F1	F1	F1	F2	F2	F2	F2	F2	F2	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3	F3		
100	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		
101	Feed Class 2																													
102	Feedstream Description				Burner 1 Diesel POHC					Burner 4 Diesel POHC					Burner 2 Diesel POHC															
103	Antimony		lb/hr																											
104	Arsenic		lb/hr																											
105	Ash		lb/hr																											
106	Barium		lb/hr																											
107	Cadmium		lb/hr																											
108	Chlorine		lb/hr																											
109	Chromium		lb/hr																											
110	Lead		lb/hr																											
111	Mercury		lb/hr																											
112	Silver		lb/hr																											
113																														
114	Stack Gas Flowrate		dscfm																											
115	Oxygen		%																											
116																														
117	Feedrate MTEC Calculations																													
118	Antimony		ug/dscm																											
119	Arsenic		ug/dscm																											
120	Ash		mg/dscm																											

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
61																												
62	Feedstream Number									F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4
63	Feed Class									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
64	Feed Class 2									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
65	Feedstream Description	All chamber waste								Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
66	Ash									9634	8990	8782	8970															
67	Chlorine									888	926	903	903															
68	Feed Rate																											
69	Heating Value																											
70																												
71	Stack Gas Flowrate									25300	26200	25800	25400															
72	Oxygen									11.7	11.4	11.8	11.7															
73																												
74	Feedrate MTEC Calculatio																											
75	Ash									153267	133793	138494	142142															141924
76	Chlorine									14127187	13781125	14240539	14309264															14114529
77																												
78																												
79	354C4	R1		R2		R3		R4		R1	R2	R3	R4	R5														Cond Avg
80																												
81	Feedstream Number									F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4
82	Feed Class									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
83	Feed Class 2									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
84	Feedstream Description	All chamber waste								Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
85	Ash									6298	6477	5800	5569	5581														
86	Feed Rate																											
87	Heating Value																											
88																												
89	Stack Gas Flowrate									25900	26900	25400	26200	25300														
90	Oxygen									11.8	11.9	11.1	11.1	10.9														
91																												
92	Feedrate MTEC Calculatio																											
93	Ash									98938	99044	86339	80369	81755	89289													
94																												
95																												
96																												
97	354C5	R1		R2		R3		R4		R1	R2	R3	R4	R5														Cond Avg
98																												
99	Feedstream Number									F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4	F4
100	Feed Class									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
101	Feed Class 2									Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
102	Feedstream Description	All chamber waste								Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
103	Antimony									0.2200	0.2110	0.2227	0.0256															
104	Arsenic									0.1941	0.1784	0.2526	0.4178															
105	Ash																											
106	Barium									0.3278	0.3324	0.4104	0.3956															
107	Cadmium									0.1965	0.1965	0.2181	0.2275															
108	Chlorine									2834	2841	2846	2844															
109	Chromium									1.2489	1.3192	1.7599	1.6139															
110	Lead									4.8172	4.5370	4.5778	6.5207															
111	Mercury									0.1088	0.1053	0.1159	0.1165															
112	Silver									0.1269	0.1236	0.1344	0.1407															
113																												
114	Stack Gas Flowrate									25800	25100	25200	25300															
115	Oxygen									10.4	10.7	10.5	10.8															
116																												
117	Feedrate MTEC Calculatio																											
118	Antimony									3012	3055	3150	371	2192														
119	Arsenic									2656	2583	3574	6061	4073														
120	Ash																											

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
121	Barium		ug/dscm																									
122	Cadmium		ug/dscm																									
123	Chlorine		ug/dscm																									
124	Chromium		ug/dscm																									
125	Lead		ug/dscm																									
126	Mercury		ug/dscm																									
127	Silver		ug/dscm																									
128			ug/dscm																									
129	SVM																											
130	LVM		ug/dscm																									
131			ug/dscm																									

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
121	Barium									4486		4812		5805		5738				5452								
122	Cadmium									2689		2845		3085		3300				3077								
123	Chlorine									38790062		41134525		40261621		41252959				40883035								
124	Chromium									17094		19100		24897		23410				22469								
125	Lead									65935		65691		64760		94585				75012								
126	Mercury									1489		1524		1639		1690				1618								
127	Silver									1737		1789		1901		2042												
128																												
129	SVM									68624		68536		67845		97885				78089								
130	LVM									19750		21683		28471		29471				26542								
131																												

	C	D	E	F	G	H	I
1	Process Information 2						
2							
3	354C1						
4							
5	Kiln Temperature	F	1641	1661	1616	1614	
6	Afterburner Temperature	F	1735	1735	1737	1744	
7	WS Pressure Drop	in H2O	28.2	27.3	27.8	23.8	
8							
9	354C2						
10							
11	Kiln Temperature	F	1477	1483	1452	1470	
12	Afterburner Temperature	F	1765	1765	1762	1764	
13	WS Pressure Drop	in H2O	28	27.7	28.4	28.4	
14							
15	354C3						
16							
17	Kiln Temperature	F	1377	1377	1389	1369	
18	Afterburner Temperature	F	1704	1708	1706	1706	
19	WS Pressure Drop	in H2O	27.5	27.4	27.2	27.2	
20							
21	354C4						
22							
23	Kiln Temperature	F	1564	1566	1558	1564	1562
24	Afterburner Temperature	F	1767	1769	1801	1816	1818
25	WS Pressure Drop	in H2O	28.7	28.8	28.7	29.9	29.7
26							
27	354C5						
28							
29	Kiln Temperature	F	1625	1625	1625	1625	
30	Afterburner Temperature	F	1776.2	1781.6	1765.4	1779.8	
31	WS Pressure Drop	in H2O	29.9	29.8	29.4	28.9	

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	354C2																		
2																			
3	ng/dscm	I-TEF		Total	Run 1			Total	Run 2			Total	Run 3			Total	Run 4		
4		Wt Fact		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND		Full ND	1/2 ND	1/2 ND	
5	4D 2378	1		0.002	0.002	0.002		0.002	0.002	0.002		0.003	0.003	0.003		0.007	0.007	0.007	
6	5D 12378	0.5		0.002	0.002	0.001	1	0.001	0.000	0.000	1	0.001	0.001	0.000		0.006	0.006	0.003	
7	6D 123478	0.1		0.002	0.002	0.000		0.002	0.002	0.000	1	0.002	0.001	0.000		0.005	0.005	0.001	
8	6D 123789	0.1		0.001	0.001	0.000	1	0.001	0.001	0.000	1	0.001	0.001	0.000	1	0.003	0.001	0.000	
9	7D 1234678	0.01		0.024	0.024	0.000		0.016	0.016	0.000		0.011	0.011	0.000		0.035	0.035	0.000	
10	8D	0.001		0.109	0.109	0.000		0.096	0.096	0.000		0.071	0.071	0.000		0.150	0.150	0.000	
11	4F 2378	0.1		0.003	0.003	0.000		0.002	0.002	0.000		0.003	0.003	0.000		0.005	0.005	0.000	
12	5F 12378	0.05		0.006	0.006	0.000		0.002	0.002	0.000	1	0.003	0.001	0.000		0.009	0.009	0.000	
13	5F 23478	0.5		0.003	0.003	0.002		0.002	0.002	0.001		0.002	0.002	0.001		0.006	0.006	0.003	
14	6F 123478	0.1		0.013	0.013	0.001		0.007	0.007	0.001		0.004	0.004	0.000		0.011	0.011	0.001	
15	6F 123789	0.1		0.003	0.003	0.000		0.002	0.002	0.000	1	0.001	0.000	0.000	1	0.001	0.001	0.000	
16	6F 234678	0.1	1	0.002	0.001	0.000		0.002	0.002	0.000		0.001	0.001	0.000		0.004	0.004	0.000	
17	7F 1234678	0.01		0.025	0.025	0.000		0.011	0.011	0.000		0.005	0.005	0.000		0.018	0.018	0.000	
18	7F 1234789	0.01		0.005	0.005	0.000		0.002	0.002	0.000	1	0.001	0.001	0.000	1	0.002	0.001	0.000	
19	8F	0.001		0.026	0.026	0.000		0.016	0.016	0.000		0.010	0.010	0.000		0.021	0.021	0.000	
20	Total PCDD/PCDF																		
21	TEQ		3.0	0.008		0.008	10.5	0.006		0.005	16.0	0.007		0.006	2.4	0.016		0.016	
22																			
23	Note: 6D 123478 and 6F 123478 also includes 123678																		