

US EPA ARCHIVE DOCUMENT

	B	C
1	<b>Source Description</b>	
2		
3	Phase II ID No.	756
4	EPA ID No.	LAD059130831
5	Facility Name	DSM Copolymer Inc.
6	Facility Location	
7	City	Addis
8	State	LA
9	Unit ID Name/No.	No. 3 boiler
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	Watertube boiler. Riley Union Type MWH with Todd Combustion low NOx burner, watertube, 268 MM Btu/hr, 200000 lb/hr steam @ 350 psig
15	Capacity (MMBtu/hr)	268
16	Soot blowing	
17	APCS Detailed Acronym	None
18	APCS General Class	
19	APCS Characteristics	NA
20	Hazardous Wastes	Liq
21	Haz Waste Description	Waste fuel oil
22	Supplemental Fuel	Natural gas
23		(Majority of fuel to boiler is nat gas; little haz waste firing)
24	Stack Characteristics	
25	Diameter (ft)	5.7
26	Height (ft)	40
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	500
29		
30	Permitting Status	Low risk waste exemption; Tier I for metals/chlorine
31	HWC Burn Status (Date if Terminated)	

	B	C
1	<b>Cond Description</b>	
2		
3	<b>756C10</b>	
4		
5	Report Name/Date	Source Emissions Survey of DSM Copolymer Boiler Number 3 Risk Burn, April and May 1997; also Risk Burn Summary - Final Report, DSM Copolymer, January 1998
6	Report Prepar	METCO
7	Testing Firm	METCO
8	Testing Dates	April 28 - May 1, 1998
9	Cond Dates	Apr-98
10	Cond Description	Risk burn
11	Content	Organics
12		
13	<b>756C11</b>	
14		
15	Report Name/Date	Recertification of Compliance, DSM Copolymer Plant, July 22, 1996
16	Report Prepar	DSM Copolymer, Lloyd Tabary
17	Testing Firm	Emission Testing Services
18	Testing Dates	May 9, 1996
19	Cond Dates	May-96
20	Cond Description	CoC; max waste feed and steam prod
21	Content	PM, CO, HCl/Cl2; metals, chlorine in feedstreams

	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Stack Gas Emissions</b>											
2												
3		Comments	Units	7% O2								
4												
5	<b>756C10</b>	<b>risk burn</b>				R1		R2		R3		Cond Avg
6												
7	Sampling Train	PCDD/PCDF	E1									
8	Stack Gas Flowrate		dscfm			50346		49884		50398		50209
9	O2		%			7.3		6.3		7.8		7.1
10	Moisture		%			15.81		15.77		15.89		15.8
11	Temperature		°F			417		419		418		418.0
12												
13	Particle Size Distribution	unable to determine due to very low PM										
14												
15	<b>756C11</b>	<b>CoC 1996</b>				R1		R2		R3		Cond Avg
16												
17	PM	E1	gr/dscf	y		0.0015		0.0034		0.0014		0.0021
18	CO (RA)	E1	ppmv	y		53.8		64.2		55.8		57.9
19	CO (MHRA)	E1	ppmv	y		53.9		65.2		63.1		60.7
20	HCl		g/hr		nd	17.7	nd	16.8	nd	17.2		17.2
21	Cl2		g/hr		nd	7.3	nd	6.8	nd	6.8		7.0
22												
23	Sampling Train	PM, Chlorine	E1									
24	Stack Gas Flowrate		dscfm			47213		47236		46973		47141
25	O2		%			3.8		3.6		3.9		3.8
26	Moisture		%			16.9		16.2		16.3		16.5
27	Temperature		°F			664		663		663		663.3
28												
29	HCl	E1	ppmv	y	nd	0.12	nd	0.11	nd	0.12		0.12
30	Cl2	E1	ppmv	y	nd	0.03	nd	0.02	nd	0.02		0.02
31	Total Chlorine	E1	ppmv	y		0.17		0.16		0.17		0.17

	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	
1	<b>Feedstreams</b>																											
2																												
3																												
4																												
5	<b>756C10</b>	<b>(risk burn)</b>	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg																		
6																												
7	Feedstream Number		F1	F1	F1	F1	F2	F2	F2	F2																		
8	Feed Class		Liq HW	Liq HW	Liq HW	Liq HW	Total	Total	Total	Total																		
9	Feed Class 2		HW	HW	HW	HW	Total	Total	Total	Total																		
10	Feedstream Description		Waste fuel oil	Waste fuel oil	Waste fuel oil	Waste fuel oil	Total	Total	Total	Total																		
11	Feed Rate	lb/min	14.69203	14.689905	14.6915932	14.7																						
12	Density	g/ml	0.75	0.75	0.76	0.75																						
13	Heat Content	Btu/lb	15400	18096	16745	16747																						
14	Ash	% wt	nd	0.1 nd	0.1 nd	0.1	0.01																					
15	Chlorine	ppmw	958	694	1042	898																						
16	Mercury	ppmw	nd	0.2 nd	0.2 nd	0.2	0.2																					
17	Lead	ppmw	nd	1.03 nd	1.03 nd	1.33	1.13																					
18	Cadmium	ppmw	nd	0.26 nd	0.26 nd	0.33	0.37																					
19	Arsenic	ppmw	nd	1.98 nd	1.98 nd	2.56	2.2																					
20	Beryllium	ppmw	nd	0.26 nd	0.26 nd	0.33	0.28																					
21	Chromium	ppmw	nd	0.17 nd	3.53 nd	1.56	1.34																					
22	Nickel	ppmw	nd	0.78 nd	0.78 nd	1	0.85																					
23	Antimony	ppmw	nd	0.78 nd	0.78 nd	1	0.85																					
24	Selenium	ppmw	nd	2.67 nd	0.27 nd	3.44	2.1																					
25																												
26	Stack Gas Flowrate	dscfm	50346	49884	50398	50209																						
27	O2	%	7.3	6.3	7.8	7.1																						
28																												
29	Thermal Feedrate	MMBtu/hr	13.6	15.9	14.8	14.8	13.6	15.9	14.8	14.8																		
30	Estimated Firing Rate	MMBtu/hr					219.0	232.8	211.2	221.6																		
31																												
32	<i>Feedrate MTEC Calculations</i>																											
33	Ash	mg/dscm	100	4.8 100	4.5 100	5.0 100	4.7 100	4.8 100	4.5 100	5.0 100	4.7																	
34	Chlorine	µg/dscm		4583.1	3122.5	5168.3	4291.3	0	4583.1	0	3122.5	0	5168.3	0	4291.3													
35	Mercury	µg/dscm	100	1.0 100	0.9 100	1.0 100	0.9 100	1.0 100	0.9 100	1.0 100	0.9																	
36	Lead	µg/dscm	100	4.9 100	4.6 100	6.6 100	5.4 100	4.9 100	4.6 100	6.6 100	5.4																	
37	Cadmium	µg/dscm	100	1.2 100	1.2 100	1.6 100	1.4 100	1.2 100	1.2 100	1.6 100	1.4																	
38	Arsenic	µg/dscm	100	9.5 100	8.9 100	12.7 100	10.4 100	9.5 100	8.9 100	12.7 100	10.4																	
39	Beryllium	µg/dscm	100	1.2 100	1.2 100	1.6 100	1.4 100	1.2 100	1.2 100	1.6 100	1.4																	
40	Chromium	µg/dscm	100	0.8 100	15.9 100	7.7 100	8.1 100	0.8 100	15.9 100	7.7 100	8.1																	
41	Nickel	µg/dscm	100	3.7 100	3.5 100	5.0 100	4.1 100	3.7 100	3.5 100	5.0 100	4.1																	
42	Antimony	µg/dscm	100	3.7 100	3.5 100	5.0 100	4.1 100	3.7 100	3.5 100	5.0 100	4.1																	
43	Selenium	µg/dscm	100	12.8 100	1.2 100	17.1 100	10.4 100	12.8 100	1.2 100	17.1 100	10.4																	
44																												
45	SVM	µg/dscm	100	6.2 100	5.8 100	8.2 100	6.7 100	6.2 100	5.8 100	8.2 100	6.7																	
46	LVM	µg/dscm	100	11.5 100	26.0 100	22.1 100	19.9 100	11.5 100	26.0 100	22.1 100	19.9																	
47																												
48																												
49																												
50	<b>756C11</b>	<b>(1996 CoC)</b>	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg	R1	R2	R3	Cond Avg														
51																												
52	Feedstream Number		F1	F1	F1	F1	F2	F2	F2	F2	F3	F3	F3	F3														
53	Feed Class		Liq HW	Liq HW	Liq HW	Liq HW	NG	NG	NG	NG	Total	Total	Total	Total														
54	Feed Class 2		HW	HW	HW	HW	MF	MF	MF	MF	Total	Total	Total	Total														
55	Feedstream Description		Waste	Waste	Waste	Waste	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Total	Total	Total	Total														
56	Feed Rate	lb/min	14.7	14.7	14.7	14.7																						
57	Feed Rate	scfh					190000	190000	190000	190000																		
58	Heat Content	Btu/lb	15000	15000	15000	15000																						

	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	
9	Heat Content	Btu/scf												1000	1000	1000	1000											
0	Ash	% wt	nd		0.01	nd	0.01	nd	0.01		0.01																	
1	Chlorine	ppmw			2500		2500		2500		2500																	
2	Mercury	ppmw	nd		0.2	nd	0.2	nd	0.2		0.2																	
3	Lead	ppmw	nd		0.35	nd	0.35	nd	0.35		0.35																	
4	Cadmium	ppmw	nd		0.09	nd	0.09	nd	0.09		0.09																	
5	Arsenic	ppmw	nd		0.5	nd	0.5	nd	0.5		0.5																	
6	Beryllium	ppmw	nd		0.09	nd	0.09	nd	0.09		0.09																	
7	Chromium	ppmw	nd		0.07	nd	0.07	nd	0.07		0.07																	
8	Antimony	ppmw	nd		0.5	nd	0.5	nd	0.5		0.5																	
9																												
0	Stack Gas Flowrate	dscfm			47213		47236		46973		47141																	
1	O2	%			4		4		4		4																	
2																												
3	Thermal Feedrate	MMBtu/hr			13.2		13.2		13.2		13.2			190	190	190	190	190	203.2	203.2	203.2	203.2				203.2		
4	Estimated Firing Rate	MMBtu/hr																									257.9	
5																												
6	<i>Feedrate MTEC Calculations</i>																											
7	Ash	mg/dscm	100		0.4	100	0.4	100	0.4	100	0.4															100	0.4	
8	Chlorine	µg/dscm			10141.0		10019.5		10252.4		10137.6																	10137.6
9	Mercury	µg/dscm	100		0.8	100	0.8	100	0.8	100	0.8															100	0.8	
0	Lead	µg/dscm	100		1.4	100	1.4	100	1.4	100	1.4															100	1.4	
1	Cadmium	µg/dscm	100		0.4	100	0.4	100	0.4	100	0.4															100	0.4	
2	Arsenic	µg/dscm	100		2.0	100	2.0	100	2.1	100	2.0															100	2.0	
3	Beryllium	µg/dscm	100		0.4	100	0.4	100	0.4	100	0.4															100	0.4	
4	Chromium	µg/dscm	100		0.3	100	0.3	100	0.3	100	0.3															100	0.3	
5	Antimony	µg/dscm	100		2.0	100	2.0	100	2.1	100	2.0															100	2.0	
6																												
7	SVM	µg/dscm	100		1.8	100	1.8	100	1.8	100	1.8															100	1.8	
8	LVM	µg/dscm	100		2.7	100	2.6	100	2.7	100	2.7															100	2.7	

	A	B	C	D	E	F
1	<b>Process Information</b>					
2						
3		Units	Run	Run	Run	Avg
4			1	2	3	
5						
6	<b>756C11</b>					
7						
8	Steam Production Rate	lb/hr	179516	180398	179854	179923

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<b>PCDD/PCDF</b>																
2	N																
3	Facility Name and ID:	DSM Copolymer (Addis, LA)															
4	Condition ID:	756C10															
5	Condition/Test Date:	April 30 - May 1, 1997															
6																	
7		I-TEF	Run 2				Run 3				Run 4						
8		Wght Fact	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	
9			Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND
10	Detected in sample volume (ng)																
11	2,3,7,8-TCDD	1	nd	0.0300	0.0300	0.0150	0.0150	nd	0.0300	0.0300	0.0150	0.0150	nd	0.0300	0.0300	0.0150	0.0150
12	Total TCDD	0	nd	0.0600	0.0000	0.0300	0.0000	nd	0.0300	0.0000	0.0150	0.0000	nd	0.0600	0.0000	0.0300	0.0000
13	1,2,3,7,8-PCDD	0.5	nd	0.0500	0.0250	0.0250	0.0125	nd	0.0400	0.0200	0.0200	0.0100	nd	0.0500	0.0250	0.0250	0.0125
14	Total PCDD	0	nd	0.0500	0.0000	0.0250	0.0000	nd	0.0400	0.0000	0.0200	0.0000	nd	0.0500	0.0000	0.0250	0.0000
15	1,2,3,4,7,8-HxCDD	0.1	nd	0.0500	0.0050	0.0250	0.0025	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0600	0.0060	0.0300	0.0030
16	1,2,3,6,7,8-HxCDD	0.1	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0500	0.0050	0.0250	0.0025
17	1,2,3,7,8,9-HxCDD	0.1	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0500	0.0050	0.0250	0.0025
18	Total HxCDD	0	nd	0.0500	0.0000	0.0250	0.0000	nd	0.0400	0.0000	0.0200	0.0000	nd	0.0400	0.0000	0.0200	0.0000
19	1,2,3,4,6,7,8-HpCDD	0.01	nd	0.1500	0.0015	0.0750	0.0008	nd	0.0400	0.0004	0.0200	0.0002	nd	0.1000	0.0010	0.0500	0.0005
20	Total HpCDD	0	nd	0.1500	0.0000	0.0750	0.0000	nd	0.0700	0.0000	0.0350	0.0000	nd	0.1000	0.0000	0.0500	0.0000
21	OCDD	0.001		0.4300	0.0004	0.4300	0.0004	nd	0.1200	0.0001	0.0600	0.0001	nd	0.2600	0.0003	0.1300	0.0001
22	2,3,7,8-TCDF	0.1	nd	0.0200	0.0020	0.0100	0.0010	nd	0.0200	0.0020	0.0100	0.0010	nd	0.0200	0.0020	0.0100	0.0010
23	Total TCDF	0	nd	0.0200	0.0000	0.0100	0.0000	nd	0.0200	0.0000	0.0100	0.0000	nd	0.0200	0.0000	0.0100	0.0000
24	1,2,3,7,8-PCDF	0.05	nd	0.0300	0.0015	0.0150	0.0008	nd	0.0300	0.0015	0.0150	0.0008	nd	0.0400	0.0020	0.0200	0.0010
25	2,3,4,7,8-PCDF	0.5	nd	0.0300	0.0150	0.0150	0.0075	nd	0.0300	0.0150	0.0150	0.0075	nd	0.0300	0.0150	0.0150	0.0075
26	Total PCDF	0	nd	0.0900	0.0000	0.0450	0.0000	nd	0.0300	0.0000	0.0150	0.0000	nd	0.1100	0.0000	0.0550	0.0000
27	1,2,3,4,7,8-HxCDF	0.1	nd	0.1600	0.0160	0.0800	0.0080	nd	0.0300	0.0030	0.0150	0.0015	nd	0.1300	0.0130	0.0650	0.0065
28	1,2,3,6,7,8-HxCDF	0.1	nd	0.0800	0.0080	0.0400	0.0040	nd	0.0300	0.0030	0.0150	0.0015	nd	0.0700	0.0070	0.0350	0.0035
29	2,3,4,6,7,8-HxCDF	0.1	nd	0.1200	0.0120	0.0600	0.0060	nd	0.0400	0.0040	0.0200	0.0020	nd	0.1000	0.0100	0.0500	0.0050
30	1,2,3,7,8,9-HxCDF	0.1	nd	0.0500	0.0050	0.0250	0.0025	nd	0.0400	0.0040	0.0200	0.0020	nd	0.0500	0.0050	0.0250	0.0025
31	Total HxCDF	0	nd	0.1400	0.0000	0.1400	0.0000	nd	0.0600	0.0000	0.0300	0.0000	nd	0.4700	0.0000	0.2350	0.0000
32	1,2,3,4,6,7,8-HpCDF	0.01	nd	0.4200	0.0042	0.2100	0.0021	nd	0.0600	0.0006	0.0300	0.0003	nd	0.3400	0.0034	0.1700	0.0017
33	1,2,3,4,7,8,9-HpCDF	0.01	nd	0.1200	0.0012	0.0600	0.0006	nd	0.0500	0.0005	0.0250	0.0003	nd	0.0700	0.0007	0.0350	0.0004
34	Total HpCDF	0	nd	0.7500	0.0000	0.3750	0.0000	nd	0.0600	0.0000	0.0300	0.0000	nd	0.4700	0.0000	0.2350	0.0000
35	OCDF	0.001	nd	0.4600	0.0005	0.2300	0.0002	nd	0.0600	0.0001	0.0300	0.0000	nd	0.3100	0.0003	0.1550	0.0002
36																	
37	Gas sample volume (dscf)			132.26	132.26	132.26	132.26		130.51	130.51	130.51	130.51		134.05	134.05	134.05	134.05
38	O2 (%)			7.30	7.30	7.30	7.30		6.30	6.30	6.30	6.30		7.80	7.80	7.80	7.80
39																	
40	PCDD/PCDF (ng in sample)			2.2000	0.1353	1.3850	0.0679		0.5300	0.0962	0.2650	0.0481		1.8900	0.1307	0.9450	0.0653
41	PCDD/PCDF (ng/dscm @ 7% O2)		99.7	0.6006	0.0369	0.3781	0.0185	100.0	0.1367	0.0248	0.0683	0.0124	100.0	0.5284	0.0365	0.2642	0.0183
42																	
43	TEQ Cond Avg	0.0164															
44	Total Cond Avg	0.237															