SQ 11114
MCL. 143
959

PROGRESS REPORT

TECHNICAL SERVICES DEPARTMENT

JOB NO:- 27/1130/2333

REPORT:- No.19

DATE:- 17th February, 1971

Distribution:- COMPANY CONFIDENTIAL.

Newport	Ruabon	Brussels
A.C. Nethercott/N. Bodger	H.A. Vodden	E.V. Weekes
R. Williams		H.N. Dahlstrom
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Anniston	W.G.K.	St.Louis
V.R. Haupt	P.W. Dalton	W.P. Papageorge
		J.R. Savage

TITLE: EFFLUENT CONTROL AROCLORS - SAMPLING/MEASUREMENT PROGRAMME

PERSONNEL: H.A. Bird. D.W.H. Casey. (A.F. REGAN)

SUMMARY: This is a follow up report to Report No.16 dated 6th July, 1970. Results have been reported on a routine basis to relevant Newport personnel.

There have been a few minor problems with test equipment, but speedy service has been maintained by use of the Hewlett Packard 402 and Perkin Elmer F11.

Sampling frequencies have been modified as information background became available. Present frequencies are:-

a) Losses from Aroclor Plant. Ejector Stream 1/week. See Appendix A.

b) Main effluent discharge from site; composite every 2 days. See Appendix B.

c) Mud samples from Severn Estuary - every 3 months. See Appendix C

d) Hydrochloric Acid; every other lot. See Appendix D

e) Atmospheric pollution - as submitted. Appendix E

Results on the main effluent continue to show downward trend with occasional high result.

FUTURE WORK:

1. Continue monitoring with emphasis on main effluent discharge and speedy report of results.
2. Continue monitoring atmospheric pollution in and around plant as required.

A.F. Regan.

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APPENDIX A

Samples from PLANT LOCATIONS. Frequency 1/week to November.

November onwards. Interceptor Pit — On request
Milk of Lime Slurry Tank — On request
Ejector Stream — 1/week

All results are given in parts per American billion (10^9)

Date	Interceptor Pit		Milk of Lime Slurry		Ejector Stream	
	Sample No	PCB	Sample No.	PCB	Sample No	PCB
July 7	278	12,891	280	51,805		
14	288	855	287	5,267	291	2,681
21	295	2,521	293	4,444	294	346
28	299	4.9	300	199	301	1,138
Aug 4	304	912	305	1,290	306	299
11	310	329	311	126	312	596
18	321	70	321	803	323	100
			328	16,041		
Sept 1			335	2,724		
9	340	412	341	519	342	274
15	346	P. Nil	347	133	348	471
22	355	69	356	299	357	145
29	361	106	362	98		
Oct 6	373	246	374	498	375	202
13	379	207	380	158	381	83
20	384	74	385	195	386	56
27	392	132	391	161	390	507
Nov. 4	396	189	395	458		
10	404	585				
17	408	237			410	P.Nil
24	414	P. Nil			415	44
	------Discontinued----------					
Dec. 8					424	103
22					432	171
29					435	212
Jan. 5					438	439
12					443	P.Nil
19					452	100
23					457	2,950
Feb 2					461	112
9					465	46

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EFFLUENT DISCHARGE [illegible]

DATE	SAMPLE NO	PCB
June 30	276	330
July 1	277	132
3	281	36
4	282	129
6	283	102
8	284	208
10	285	145
12	286	208
13	289	172
15	290	22
18	292	2,541
21	296	10
23	297	718
25	298	115
Aug 1	307	225
3	308	47
5	309	1,077
10	319	P.Nil
12	320	P.Nil
13	325	65
14	326	398
21	327	439
23	331	1,596
27	332	2,215
29	333	2,460
31	338	158
Sept. 7	343	2,154
16	353	45
18	354	403
20	358	139
24	359	69
26	371	20
28	369	932
30	372	P.Nil

DATE	SAMPLE NO	PCB
Oct. 5	376	3,905
7	377	164
11	382	211
20	389	86
24	394	156
30	398	4,573
Nov. 4	401	563
10	406	54
16	412	P.Nil
21	417	P Nil
26	419	700
Dec. 6	422	P.Nil
7	425	155
9	426	Nil
11	427	P.Nil
14	429	76
16	430	100
19	431	93
20	433	P.Nil
23	434	49
29	436	55
1971		
Jan 2	439	116
5	440	83
7	441	259
9	442	884
12	450	Nil
14	451	184
16	453	453
18	454	222
21	455	341
23	456	173
25	458	149
28	459	264
31	460	928
Feb 2	462	P Nil
4	463	P Nil
6	464	112
8	466	416

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APPENDIX C - SEVERN ESTUARIAL MUD p.p.b. (10^9)

		June 1970	Aug	Sept.	Jan 1971
BEACHLEY	↑ upstream	328	462	170	558
COLDHARBOUR		1,092	89	410	262
GOLDCLIFF		540	689	3,090	320
* MONSANTO					
LIGHTHOUSE	↓ downstream	330	489	P.Nil	105
PETERSTONE		849	1,084	429	P.Nil
SULLY		200	250	475	464

GOLDCLIFF SAMPLE FOR SEPTEMBER SEEMS A 'HIGH FLIER' RESULT. THE MUD SAMPLE WAS CHECKED.

AP: DIX D - HYDROCHLORIC ACID ρb (10^9)

DATE	LOT NO	PCB	DATE	LOT NO	PCB
July 7	E 109	2,705	Oct. 4	E 159	2,998
7	E 111	890	12	E 162	80
9	E 112	836	Nov. 15	E 175	637
12	E 114	1,380	18	E 176	759
15	E 116B	105	20	E 177	1,542
16	E 36A	523	22	E 178	421
17	E 117	2,005	24	E 179	138
19	E 118	800	27	E 180	246
20	E 119B	1,941	Dec. 1	E 47B	937
20	E 37A	450	10	E 182	170
20	E 115	211	19	G. 1A	P.Nil
21	E 120	210	19	G. 1B	295
25	E 122	40	21	G. 2A	461
29	E 124	1,337	29	G. 4	286
29	E 125	3,867	29	G. 5	P.Nil
	E 127	785			
	E 128	228	1971		
AUG.12	E 132	Nil	Jan. 2	G. 6	P.Nil
14	E 134	655	5	G. 8	248
23	E 138A	907	9	G. 10	811
23	E 38B	1,562	13	G. 13	362
25	E 140	1,447	17	G. 15	466
Sept			20	G. 16	219
10	E 148	1,561	22	G. 17	439
15	E 151	905	22	G. 18	347
16	E 152	826	29	G. 22	324
18	E 154	P.Nil	Feb. 4	G. 25	254
24	E 156	P.Nil	8	G. 27	P.Nil
28	E 158	415			

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APPENDIX E

To date 65 samples have been tested in suport of investigation into atmospheric pollution at selected locations. Results have been listed under Job No. 7139/2392.

Report No. 1	dated	14th July, 1970
No.2.		15th October, 1970
No.3.		30th December, 1970.