From **MONSANTO CHEMICAL COMPANY**

At Anniston, Alabama

Date September 9, 1953
(Dictated 9-4-53)

To Mr. P. G. Benignus
St. Louis

At Mr. E. P. Wheeler
St. Louis

Reference EPW-PGB/EEH,
6-26-53

Subject INTERIM REPORT
NO. 2892

cc Dr. R. L. Jenkins -
St. Louis
Mr. J. L. Christian -
St. Louis
~~Mr. T. K. Smith -~~
St. Louis
Mr. H. F. Weaver -
St. Louis
Dr. N. N. T. Samaras -
Dayton
Dr. R. E. Kelly -
St. Louis
Mr. A. M. Ellenburg
Mr. H. B. Richards
Mr. J. W. Carlson
Mr. J. B. Trotter
St. Louis

Your fine constructive comments concerning this interim report have been studied with great interest by Mr. Ellenburg, Mr. Richards and myself. From your own participation in this experiment, you well realize the difficulty in obtaining reliable atmosphere blanks due to the nature of the operation and the vicinity of the scrubbing tower, which at times will permit small amounts of HCl and chlorine to escape into the Anniston atmosphere. To be fully valid, I believe that a large number of determinations will have to be made sufficiently to permit statistical evaluation. As you know and as was discussed with you, we decided against this course of action when this work was undertaken.

Concerning the reagent blank, we realize that in those measurements where small concentrations of chlorine were encountered in the atmosphere the reagent blank, by comparison, assumes a rather large value. However, all values that have been reported in the report were corrected for reagent blank.

We agree with you that the values obtained, due to the presence of unknown amounts of chloride ion in the atmosphere from other sources, can well be considered maximum rather than minimum values.

We shall look into improvement of the method, which might permit us to distinguish between Aroclor-chlorine and chlorine from other sources, but believe that due to the small amounts present this might involve an effort out of proportion to the goal obtained. Any suggestions that you may have along these lines will be greatly appreciated.

Attached you will find an addendum to the interim report, which contains latest tabulated data on measurements made since the issuance of this report. You will also find a table showing data obtained in a room painted with styrene latex paint containing Aroclors. These tests are continuing.

Edgar E. Hardy (E.E.H.)
Edgar E. Hardy

EEH/w

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TABLE I

Plant Samples During Aroclor 1242 Operation

Run No.	Position No.	Concentration, mg./cu. m. Cl^-	Concentration, mg./cu. m. Aroclor	Remarks
10	5	0.14	0.33	
29	4	1.5	3.6	These tests previously reported in Report No. 2892.
30	5	1.5	3.6	
31	6-8	2.2	5.3	
45	1	0.85	2.0	Aroclor 1242 in both stills and 1254 being drummed during these tests. Both filters cold.
46	2	0.34	0.80	
47	3	0.85	2.0	

Note: Additional data are needed during 1242 operations. The position numbers in this table and in tables II and III are as described in Report 2892.

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TABLE II

Plant Samples During Aroclor 1254 Operations

Run No.	Position No.	Concentration, mg./cu. m. Cl^-	Concentration, mg./cu. m. Aroclor	Remarks
25	5	0.41	0.76	These tests previously reported in Report No. 2892.
27	5	0.50	0.92	
32	6-S	1.45	2.68	Filtering 1254 @ 115°C.
33	6-N	1.04	1.95	
34	3	0.75	1.39	Filtering 1254 @ 110°C., Sparkler filter.
35	4	0.51	0.94	During 1254 distillation.
36	4	0.37	0.68	
37	5	1.30	2.40	After pumping 1254 from receiver to blending tank.
38	5	1.98	3.66	
39	10	0.40	0.80	At steam recorder.
40	7	0.73	1.46	At operators' desk.
42	6-N	2.4	4.5	Filtering 1254 @ 120°C.
43	8	4.3	8.0	Drumming 1254 @ 150°C.
44	8	1.3	2.4	

Note: The analytical procedure for sample 37-40 inclusive was carried out using one-half the regular sample size.

TABLE III

Arocolor Vapors from Styrene Latex Paint

Run No.	Date 7-53	Concentration, mg./cu. m. Cl^-	Arocolor	Remarks	
48	17	0.32	----	These four samples were blanks in the room before painting.	
49	17	0.89	----		
50	17	0	----		
51	17	0.64	----		
52	17	----	----	Reagent blank, 0.007 mg. Cl^-	
53	20	0.32	0.67	Center East, 30 min. after painting.	
54	20	1.28	2.68	Center, 1.5 hrs. after painting.	
55	21	0.95	1.9	Center South	1 day after painting
56	21	0.92	1.9	Center	
57	21	0.53	1.1	N.E. corner	
58	21	0.98	2.0	Inside hood, 46°C.	
59	21	0.52	1.1	Intake in hood, 45°C.	
60	22	0.57	1.2	Inside hood, 50°C.	
61	22	0.30	0.62	N.E. corner	
62	22	0.55	1.1	Center	
63	23	0.12	0.25	N.E. corner	
64	23	0.14	0.29	Center	

Note: Room remained closed and unventilated during entire period. Arocolor odor present during entire period.

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