

MINUTES
AROCOR - WILDLIFE; REVIEW OF BIO-TEST
STUDIES

MONSANTO GENERAL OFFICES
MEDICAL DEPARTMENT
ST. LOUIS, MISSOURI

September 19, 1969

TO:

Those Present

M. W. Farrar
W. H. Hunt
R. E. Keller
R. E. Kelly
→ E. S. Tucker
E. P. Wheeler

Not Present

W. R. Richard

The above attendees reviewed with O. E. Fancher, Director, Industrial Bio-Test Laboratories, the biological results to date of their feeding studies and the consolidation of tissue samples for residue analysis by the Analytical Group of the Applied Sciences Section.

PRR 022556
SCM 038298

Kelly
EXHIBIT NO. 17
R.G. 12/12/80

A detailed analysis of the currently planned analytical support work for the Aroclor - Wildlife project was prepared for this meeting, Table I. The analysis includes a listing of studies, manpower requirements and a dollar cost for the analytical support of each study. In brief, it was ascertained that there were at least five separate Bio-Test feeding studies in progress or planned which would require 105 man weeks to analyze the estimated 1340 samples being generated, at a cost of \$63,000. An additional \$18,000 of work not involving Bio-Test is also outlined in the Table.

Meeting Objectives

- I. Review Bio-Test feeding studies with special regard to the scheduling and reduction of the number of samples to be analyzed.
- II. Status review of the biological results, to date, of Aroclor - Wildlife Bio-Test feeding studies.

With these facts in mind, each Bio-Test study listed in Table I was critically reviewed to determine if the number of samples requiring residue analysis could be decreased without appreciably effecting the results.

1. Rat Tissue Study 7C-17

Actions: - Delete residue analysis of rats fed chlorinated naphthalenes and pesticides.

Pool male and female animals.

2. Chicken Toxicity, Reproduction, and Meat and Egg Residue Study

- Actions: - Pool larger numbers of eggs.
- Analyze only fat, muscle, and liver tissues.
 - Restrict analysis to one, no effect level for each Aroclor.

3. Mallard Duck Study

Action: - Equivalent to Study No. 2.

4. Two Year Chronic Toxicity in Rats

Actions: - Delete 9 month sacrifice.

PRR 022557

SCM 038299

- Actions: - Pool all male and female animals.
(Cont'd)
- Restrict analysis to one, no effect level for each Aroclor.

5. Fish Toxicity Study

- Actions: - None; study design requires this number of samples.

6. Rat Reproduction Study

- Actions: - Addition of 2nd litter, 1st generation, rat pups to be analyzed.

7. Two Year Chronic Toxicity Study in Dogs

- Actions: - Addition of selected tissues for residue analysis.

TABLE II
AROCLOL - WILDLIFE ANALYTICAL SUPPORT REVISED
(Bio-Test Section Only)

		No. Samples	Man Weeks	\$ Cost
I. Residue Determinations	<u>Priority</u>			
<u>Status</u> A. Biological Residues (Bio-Test)				<u>Man Weeks</u> <u>\$ Cost</u>
<u>Completed - Test Unit</u> 1. Rat Tissue Study	40	3	1,800	5,100
<u>Planned</u> 2. Chicken Toxicity, Reproduction, and Meat and Egg Residue Study	96 200	(3) 8 16	4,800 2,400	2,400 2,400
3. Mallard Duck Study	96	8	4,800	
<u>6-9 Months Data</u> 4. Two Year Chronic Toxicity in Rats	160- 10-12	(1) 12	7,200	6,000
5. Fish Toxicity Study	60	(2) 9	5,400	5,000
6. Rat Reproduction Study	10	(1) 1	600	300
7. Two Year Chronic Toxicity Study in Dogs	40	(3) 3	1,800	2,000
	502	44	26,400	

PRR 022558

SCM 038300

It is important to note that neither Table I nor the revision take into account work done by the Spectroscopy Group (GC/Mass), duplicate analysis of samples, nor any additional method development required.

The results, to date, of the biological studies were issued in progress reports distributed by Dr. Fancher.

Additionally, arrangements were made to have Bio-Test store tissue samples in Chicago until they can be analyzed.

E. S. Tucker

db
Attachment

PRR 022559

SCM 038301

	<u>Charges</u>	<u>Samples</u>	<u>Man Weeks</u>	<u>Anal. Cost (\$)</u>
I. <u>Residue Determinations</u>				
A. <u>Biological Residues (Bio-Test)</u>				
1. Rat Tissue Study	Reg.	160	12	7,200
2. Chicken Toxicity, Reproduction and Meat and Egg Residue Study	Reg.	360	27	16,200
3. Mallard Duck Study	Reg.	360	27	16,200
4. Two Year Chronic Toxicity in Rats	Reg.	400	30	18,000
5. Fish Toxicity Study	Reg.	60+	9	5,400
		<u>1,340</u>	<u>105</u>	<u>63,000</u>
B. <u>Environmental Residues</u>				
1. Outside				
a. Lake Michigan WARP Study	Reg.	12+MD	2	1,200
b. Detergents & Components	Inorg.	20+MD	3	1,800
2. Monsanto				
a. Anniston - Water/Sediment/Fish	Mfg.	14 in hand	1	600
b. WGK - Water/Sediment	Mfg.	13 in hand	1	600
c. Pensacola - Water/Sediment/Fish	Reg.	12 in hand	1	600
d. Ruabon - Sediment	Reg.	4 in hand	1	600
e. Florida - Soil Poison Test Samples (Soil)	Reg.	45 X 2	5	3,000
		<u>165</u>	<u>14</u>	<u>8,400</u>
II. <u>Special Studies</u>				
A. Ultraviolet Degradation of PCBs, et al	Reg.	MD	4	2,400
B. Water Extractability of PCBs from Painted Surface	Reg.	MD	3	1,800
C. Characterization of Competitive PCB Products	Reg.	MD	1	600
D. Analysis of Auto Exhausts for PCBs	Reg.	MD	1	600
E. Analysis of Pesticides for PCBs	Reg.	MD	3	1,800
F. Determination of the Quarter Phenyl Content of Aroclor 5460	Reg.	MD	4	2,400
		<u>-</u>	<u>16</u>	<u>9,600</u>
TOTALS:		1505	135	81,000

Assumption - 3 hr./sample
\$15/hr. = \$600/wk.

MD - Method Development

PRR 022560

SCM 038302

ORIGINAL

IN THE COURT OF COMMON PLEAS
PHILADELPHIA COUNTY

IN RE: PAOLI RAILROAD YARD)
PCB LITIGATION,)
)
)
) MASTER FILE
) NO. 90-0609-C-6

EXHIBITS TO THE
DEPOSITION OF R. EMMET KELLY, M.D.
DECEMBER 11-12, 1990

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