CHLORINATED BIPHENYLS

CHRONOLOGICAL EVENTS

3/1/69

12-1 66 ✓ Report of New Chemical Hazard - New Scientist Dec. '66
(Jensens Work)
First published report about PCB

12-29 66 ✓ Widmark letter to Ford-Monsanto
Head of Institute of Analytical Chemistry
University of Stockholm, Sweden
Found unknowns to be polychlorinated biphenyls
made by Monsanto, et al - used GC/Mass.
Sea eagle - 80 ppm polychlorinated biphenyls
- 80 ppm pesticides
- 40 ppm mercury
No knowledge of biological significance in living organisms.
Collaboration started with Dept. of Toxicology/Carolin Institute.
Would like to work with Monsanto Toxicologists on problem.

1-10-67 ✓ Press Release, LKB Instrm. Co.
(Jensens Work)

1-26-67 ✓ D. Wood letter to Buchanan
Visited Sweden
Confirmed chlorinated biphenyl report of Jensen

1-30-67 ✓ Editorial in Chemical Engineering
Covers Jensens work

2-13-67 ✓ Wilde letter to Kelly

2-21-67 ✓ Hardy letter to Kelly
Richard of Shell - Jensen may have jumped gun in blaming chlorinated biphenyls

2-21-67 ✓ Kelly letter to Wilde - No need to contact Swedish people

2-27-67 ✓ Widmark letter to Wilde
Reviews lecture at Baeyer in Germany

2-27-67 ✓ Kelly letter to Thomas - NCR

3-16-67 ✓ Wilde letter to Kelly - Widmark Letter

5-67 ✓ S.A.O.A.C. - Pub. - Widmark 50 1069 (1967) ✓

10-21-67 ✓ Holmes, Simmons, Tatton - Nature 216 227 (1967)
Confirms work of Jensen

11-1-67 ✓ Hardy letter to Richardson at Shell
Status of work at Shell?

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11-2-67 ✓ Richardson letter to Hardy
Confirmed by GC/Mass. Aroclor 1254 in eggs from 100 ppm feeding studies - confirmed Govt. Labs.

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12-30-67 ✓ Holden, Marsden - Nature 216 1274 (1967)
PCB in seals
PCB appears in birds with aquatic environment - suggests river contamination.
Human in UK contain little PCB <0.1 ppm in fat.
Suggests pollution is of aquatic origin - if air more would be found in human fat.
Conns found & LD_{50} - unlikely that residues of PCB constitute direct toxic hazard.

1-8-68 X Heininger letter to Robson/Anagnostopoulos.
1-18-68 WARF CEA
Birdsall, Wisconsin Alumni Res. Foundation (WARF)
Studies to be on shore birds
Funded by U.S. Dept. of Interior, Fish & Wildlife Service
Suggested that Monsanto-WARF work openly

1-16-68 Wilson letter to Gentlemen/Monsanto
Res. Chemist, U.S. Dept. of Interior
Fish & Wildlife Service
Investigation of chlorinated polyphenyls in avian and animal tissues

1-26-68 ✓ Lincer letter to Patterson, MCL
Res. Assistant, Syracuse Univ. Res. Corp., New York
Wanted polychlorinated biphenyl references & materials

2-8-68 ✓ Spencer letter to Richard
Consultant, Nat. Ag. Chemicals Assoc-
Interferences with chlorinated hydrocarbons

2-13-68 ✓ Baxter letter to Richard - Ref. to Syracuse

2-19-68 ✓ Richard letter to Baxter - Aroclor 5a, status

2-23-68 ✓ Hardy letter to Richard

4-26-68 ✓ Paton letter to Kelly

5-3-68 ✓ Newell letter to Hunt
Chairman Dept. of Ag. & Environmental Toxicology, Stanford Res. Institute
Toxicological results/birds & fish/enzyme induction stimulated
Recommended tests in cooperation with Monsanto rather than seek govt. support
Med. Dept. recommended no action.

5-6-68 ✓ Kelly memo to Robson/Anagnostopoulos - Reference to 5-3-68 ✓

5-20-68 ✓ Richard to Davis and back ✓

5-23-68 ✓ Richard to Davis and back

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7-15-68 ✓ Glasgow, Chief Pesticides - requested info on Aroclors
Ref. Std. Section
Dept. Health, Education & Welfare
Blickenstaff - USDA - quality control for formulations
Dykstra - USDI - Pautuxent, Maryland Labs - Aroclor sent

7-31-68 ✓ Paton Memo

8-23-68 ✓ Wheeler to Early, trip plan

9-5-68 ✓ Wheeler plan memo for visits

9-11-68 ✓ Wheeler memo to Richard - Biotest Protocols

10-9-68 ✓ Risebrough - Confidential pre-publication
PCB in fish & birds
Comments from Monsanto solicited

10-21-68 ✓ Wheeler to Richard - Risebrough paper

11-1-68 ✓ Risebrough to Conkin - Publication Review

11-6-68 ✓ Wheeler to Richard

11-13-68 ✓ Conkin to Risebrough - Comments on review of manuscript

11-14-68 ✓ Wheeler memo to Richard

11-27-68 ✓ Paton to Richard
Include Aroclor 5460

11-68 Gunther - Prof. of Entomology & Chemistry, Univ. of Calif.
School of Ag. Sciences
Dept. of Entomology
Citrus Res. Ctr & Ag. Expt. Sta. - Riverside

State USDA Research Area
Committee including Hawaii
DDT & chlorinated hydrocarbons

12-3-68 ✓ Gunther to Paton - Request for Aroclor Sas.

12-9-68 ✓ Wheeler to Richard - Calendra Minutes

12-9-68 ✓ Richard to Wheeler - Calendra Minutes

12-14-68 ✓ Risebrough - Nature 220 1098 (1968)

12-19-68 ✓ Richard to Tucker - DDT, et al

12-20-68 ✓ Wheeler to Calendra - Letter of authorization

12-23-68 ✓ Bryant to Harris - Rome Pollution Laboratory

12-30-68 ✓ Richard to Kuhn - Legal problems

12-30-68 ✓ Tucker to Richard - Chlorinated Naphthalenes

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12-31-68 ✓ Tucker to [illegible] - Aroclor at Anniston

1-7-69 ✓ Wheeler to Richard - Aroclor Wildlife

1-9-69 ✓ Wheeler to Richard - Meeting

1-10-69 ✓ Wheeler to Calendra - Feeding of Halowaxes

1-16-69 ✓ Wheeler to Tucker - Widmark Paper

1-21-69 ✓ Wheeler to Fancher - Proceed with chickens

1-21-69 ✓ Wheeler to Richard - Pesticide Structures

1-23-69 ✓ Hodges to Buckley - Aroclors in Plant Effluents

1-24-69 ✓ Paton to Keller, et al - Montar

1-30-69 ✓ Tucker to Wood - Update

2-4-69 ✓ Wood to Tucker - Reply

2-7-69 ✓ Tucker to Wheeler - Pesticide Sas.

2-10-69 ✓ Wheeler to Fancher - DDT, et al sas.

2-24-69 ✓ Perlman - San Francisco Chronicle

2-25-69 ✓ Tucker to Keplinger

2-25-69 ✓ Tucker to Wheeler - Widmark's Paper

2-25-69 ✓ Tucker to Wheeler/Richard - Anniston River Results

2-26-69 ✓ Notes on meeting - Burgen, et al

2-26-69 ✓ Tucker to Stark - Solubility

2-28-69 ✓ Rough Draft - Keller - Position Statement

3-4-69 ✓ Tucker to Richard - Combustion

3-4-69 ✓ Wheeler to Wood - Dept. of Fish & Game

3-5-69 ✓ Paton to Richard - DDT on Trial

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