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CHLORINATED BIPHENYLS

CHRONOLOGICAL EVENTS

- 11-22-66 - JENSEN LECTURE, WENNER-GREN CENTER MEETING, STOCKHOLM
- 12-15-66 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^N 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? DSW 372237
- 11-2-67 Richardson letter to Hardy
Confirmed by GC/Mass. Aroclor 1254 in eggs from
100 ppm feeding studies - confirmed Govt. Labs.

- 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.
 Concs. found & LD50 - unlikely that residues of PCB
 constitute direct toxic hazard.
- 1-8-68 Heininger letter to Robson/Anagnostopoulos.
 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 ¹²⁴⁸ 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. Stds. 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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MEMO

12-31-68 Tucker ~~to Tucker~~ - 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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R. E. Keller
3/10/69

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