LaSalle, Que.

July 21st, 1970.

cc. J.G. Edmiston
H.S. Bergen
J.E. Springate
W. Papageorge

Call Report: Ontario Water Resources Commission
April 22nd, 1970.
Location: Ontario Water Resources Commission,
135 St. Clair Ave. West,
Toronto, Ont.

Present for Monsanto: William Papageorge - Environmental Mgr., St. Louis
John Brydon - Sales Mgr. - Plasticizers & Fluids Mocan

for O.W.R.C. - Mr. F.R. (Robert) Phoenix
Supervisor - Field Services Branch
Division of Industrial Wastes

- David L. Wells
Biologist

for Ontario Department of Health - Dr. Ernest Mastromatteo
Director, Environmental Health Services Branch
Ontario Department of Health.

This meeting was called at the request of Mr. F.R. Phoenix in order to prepare a report required on P.C.B's by the Ontario Water Resources Commission. The subject was an urgent matter since as late as April 17, 1970, P.C.B's had been mentioned in the Ontario Government as being found in the St. Clair River.

Mr. Papageorge explained Monsanto's product line of Aroclors. That these products do not exist as pure compounds and that we sell mixtures. The numerical coding of the Aroclor compounds was outlined, specifically detailing 12 as Bi Phenyl and the 54, 60 and 42 as percents by weight of chlorine.

It was confirmed that we were the only manufacturers in North America of P.C.B's. However the other European and Japanese manufacturers were mentioned.

Applications for P.C.B's were requested and the following uses were mentioned and discussed:

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(1) Primary use - Electrical Industry - Capacitors and Transformers
(2) Heat transfer fluid
(3) Industrial fluids - Air compressors
Die casting
(4) Coatings - Specialty paints - Good insolubility
- Flame retardance
- Chemical Resistance
(5) Sealants - Caulking materials
(6) Cutting oil

The possible use of Aroclors in tires and PVC compounds were discussed and we claimed that to the best of our knowledge Aroclors were not used in PVC and especially not in tires.

The Diluth, Wisconsin PCB meeting was discussed and mention was made of the statistical data being found. Mr. Papageorge discussed the toxological feeding studies being conducted by Monsanto on dogs which were now in their 10th month and as yet were not conclusive. It was mentioned that 75 labs were involved on studies of rats and that these studies were now into the 2nd generation. Some liver enlargement had been noticed.

The question was put forth: "How can we measure PCB's and be sure we are getting PCB's?" The lab methods used by Dr. Robert Keller were given out. Mr. Papageorge also gave the names of Dr Kelly and Wheeler for contact if required.

The question was put forth: "How do PCB's get into the environment" and the following possibilities were mentioned:

(a) Faulty shipping containers
(b) Unsatisfactory house cleaning methods
(c) Cutting & drawing compounds
(d) Capacitors
(e) Carbon filters
(f) PCB's cling to solids or are absorbed by solids

The subject of biodegradability was mentioned and Mr. Papageorge mentioned the studies that were done in Wales indicating that lower chlorinated BiPhenyls will degrade, whereas higher chlorination will resist.

The question - "How do PCB's get into water" was asked and answered by possibly (1) container
(2) house keeping MONS 072244
(3) over heating

Monsanto's position or policy was discussed and mention was made of our arranging to return used fluids for reclaiming or completely destroying. Our proposed incinerator was discussed and the temperature requirements were mentioned - 1600°F, 1800°F and 2000°F at the stack.

The requirement for disposal of solids containing PCB's such as carbons, clays, filters, and capacitors into a solids incinerator was mentioned.

The desire to cooperate with regulatory agencies and to prove Monsanto as a responsible member of the world community was expressed.

The following articles were given out by Mr. Papageorge and the meeting adjourned.

(1) Hygenic Guide Series on Chloro DiPhenyls
(2) Article from Jan. 2, 1970 - Science Magazine P67 - 69.
(3) Aroclor Bulletin - Spread Sheet - Typical Properties
(4) Analytical Chemistry - Method 69-13 Job No. 18303 (Monsanto Procedure).

JHB:fnb

J.H. Brydon.