MONSANTO CANADA LIMITED

CANADA
PCB

SUMMARY OF PRESENTATION

TO

ONTARIO HYDRO ELECTRIC COMMISSION

13 NOVEMBER 1972

OBJECTIVES

Ontario Hydro Electric Commission

1. To describe and explain the PCB Environmental Issue.

2. To describe the actions taken by Monsanto to contain the PCB problem.

3. To summarize Monsanto's studies on PCB biodegradation.

4. To describe PCB changes made by Monsanto in dielectrics.

5. To acquaint you with the activities of the ANSI C-107 Committee on guidelines for safe handling/disposal of PCBs in dielectrics.

MONSANTO CANADA LIMITED

ONTARIO HYDRO ELECTRIC COMMISSION

AGENDA

Monsanto Presentation - 13 November 1972

1. Introduction - TW Oneson

   - Objectives
   - Monsanto Personnel
   - Agenda

2. Historical Summary of PCB Environmental Issue - WB Papageorge

3. Monsanto's actions on PCB sales with specific reference to Canada - D Goodwillie

4. Very condensed version of biodegradability studies - WB Papageorge

5. PCB changes in Dielectrics - C Paton

6. ANSI C-107 committee activities - PG Benignus

7. Monsanto's present position on PCBs with regard to Dielectric Industry - C Paton

8. Summary

Meeting with Department of Environment - Ontario
Ontario Hydro

13 November 1972

General Comments

It appears from our discussions that OHE wish to continue to use askarels in transformers. Initially there was some confusion about obtaining material. This was due to delayed signing of hold harmless agreements which has been corrected. They would like to be able to do their own refilling of transformer and not have to rely on the service department of the electrical companies.

Mr. Phoenix of the department of Environment stated that they would have to inspect companies who have been using PCB's in hydraulic systems

Questions and Answers

Q. What are the imports of PCB's into Canada from sources other than the US?

A. To the best of our knowledge negligible to date. A recent contract for transformers for BC has supposedly gone to the Japanese

Q. How big is OH as a user?

A. As a direct purchaser of fluid - very small. In Canada as a purchaser of filled transformers - large

Q. Are there any alternative fluids?

A. The US electrical industry advised the US government that there was no suitable replacement for askarel filled units at this time.
Mineral types are limited by poor fire resistance
Open dry transformers cannot be used in a corrosive atmosphere

Q. OH does not want to have to use the electrical companies service departments to fill (top-off) transformers

A. It is suggested that you negotiate a suitable course of action with the supplier of transformers

Q. What is the best system for cleaning systems and spills?

A. 1) Solvent degreasing - offers the best control
(It is best to keep PCB's away from water)

2) Detergent emulsification is not suitable

Q. Have biodegradation studies been carried out on the higher homologues - Monsanto will likely be questioned on this?

A. No not as yet. We believe that some scientists are working on this
When we talk about degradation we should reference all types of degradation - not just bio

Q. **Will the composition of PCB's change during extraction?**

A. **No.**

Q. Is it necessary to change old transformers containing 1260 to the lower chlorinated products?

A. No. We have stopped supplying 1260 but it is not necessary to convert system in use

Q. How much PCB has been incinerated?

A. In the US in excess of 1½M pounds. Monsanto Canada has returned .5M pounds

Q. Can askarel soaked solids be disposed of?

A. Yes if the money required to build a system could be justified and utilised. The job of course involves collection of spent capacitors, labour, an estimated 11¢ per pound for disposal , a pyrolising technique to vapourise and an after-burner system has been thought of.

Q. Can Aroclor 1016 be used in transformers?

A. No. Fire retardant properties are not met. Danger would be from arc formed gases.

Q. What are the open systems?

A. Plasticizers for vinyl chloride resins, paints, carbonless copy, hydraulic fluids, heat transfer

Q. & A. Ontario Department of the Environment suggested that they would have to inspect users of hydraulic systems

Q. Have tests been conducted on people who have been working with PCB's?

A. Only yearly medicals
A brief discussion on the Japanese fish oil was conducted