

Monsanto

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April 15, 1982

Mr. Barry Sheerman, MP,
Huddersfield East
House of Commons
WESTMINSTER
London, England SW1A 0AA

Dear Mr. Sheerman:

Mr. Dan Bishop, Director of Public Affairs of Monsanto Europe, SA, asked that I respond to your letter of March 26.

It is difficult to present the scientific evidence relating to the health, toxicity and environmental effects of PCB's in a few pages; however, the task of reviewing the data from the thousands of studies (over 5,800 since January, 1976) is not impossible.

Recent thorough reviews of the health and toxicity effects of PCB's, with particular emphasis on data obtained and published since 1975 when the Toxic Substances Control Act was being drafted, have been conducted by several independent reviewers, including the scientific staff of the Department of Medicine and Environmental Health of Monsanto Company. Results of these reviews have been published and were submitted to the U.S. Environmental Protection Agency.

Results of these reviews, including an extensive scientific review of more than two dozen health studies dealing with human exposures to PCB's, fail to show a link between the chemical and human cancer (see attachments). The human epidemiology studies have shown that while exposure to PCB's can cause temporary skin problems, there are no clinically observable long-term health effects, including the occurrence of cancer.

All of the occupational studies of health effects agree that there has been no clinical illness associated with PCB exposure other than dermatitis (skin disorder). Studies of non-occupationally exposed populations have found neither dermatitis nor other clinical evidence of exposure-related effects.

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These conclusions are based on an extensive review of published and unpublished epidemiologic studies which have been performed by a number of scientists in the United States and abroad, including those from Federal and State governmental agencies, universities and medical schools.

In addition, thorough reviews of the scientific and technical literature, relating to health effects of test animals exposed to PCB's, by several independent bodies show that PCB's are not "deadly toxins" as occasionally misrepresented in the news media. On the contrary, as pointed out in the attached summary report, any impact of PCB's on the environment is so slight as to be totally insignificant.

The report of the U.S. science body of the National Research Council of the National Academy of Sciences ("Polychlorinated Biphenyls", National Academy of Sciences, Washington, DC, 1979) sums up even the most recent reviews:

"Although PCB's have been detected in the U.S. population, there have been no documented cases of PCB intoxication of humans other than those related to industrial exposure. Effects, when detectable, have been subtle rather than overt."
(Page 122)

With respect to the letter of Dr. D. J. Roberts on the subject of PCB destruction research funding, there are other areas of error in fact other than PCB health effects or in insinuations based upon partial facts.

For example, the U.S. EPA Industrial Environmental Research Laboratory at Cincinnati, Ohio, published a draft document in June, 1981, discussing "High-Temperature Degradation Characteristics of Hazardous Organic Wastes -- A Laboratory Approach." In these studies, pure PCB's were degraded under a series of controlled incineration conditions. The EPA report noted that "no dioxin structures were observed" as reaction/degradation products of the PCB's tested.

Dr. Roberts states correctly as noted also in the National Academy of Sciences report that Aroclor® brand PCB's may have contained contaminant polychlorodibenzo furans at trace levels (i.e., up to 2.0 ppm). Dr. Roberts insinuates that this may pose a significant health risk. However, the

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Recent health reviews prepared for U.S. EPA took this contaminant issue into account in their evaluation of PCB health effects. The reviewers stated:

"It is our independent professional opinion that 'any exposure to PCB's' does not pose a significant health risk to humans. These conclusions are based upon data of the primary exposure to commercial grade PCB's."

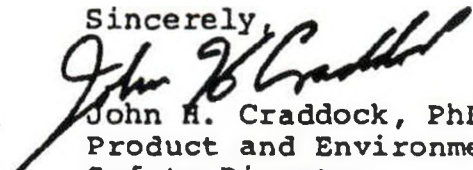
In most animal and human epidemiology studies reported in the literature which were reviewed, the form of PCB material that the subjects were exposed to was "commercial" PCB's and its concomitant impurities, if any.

Lastly, Dr. Roberts states his interest is to seek funding for research programs on methods for disposing of PCB's, particularly hydrodechlorination reactions. I sympathize with his efforts to solicit sponsorship. This area is a very active and fertile one for PCB disposal methods. Currently, in the U.S. no less than five commercial processes for dechlorination of dilute PCB's in transformer fluids have been approved or are being tested by EPA. Three of these processes are available for commercial hire now.

Enclosed are several summary packages of information on the PCB issue for your use. I have chosen summaries so as not to deluge you with tons of paper; however, details are available.

I'll be happy to attempt to answer other questions you may have on this subject.

Sincerely,


John H. Craddock, PhD
Product and Environmental
Safety Director

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enclosures: Ecology & Environment, Inc., Executive Summary
Report for Chemical Manufacturers Association
CMA Comments to ANPR (46 FED. REG. 16096),
Pages 7-18
Edison Electric Institute Comments on Use of
PCB's, Vol. I, Pages 7-14
80-015 Package

cc: Mr. D. R. Bishop - MONSANTO EUROPE, SA

bcc: C. J. Larsen



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