November 6, 1970

Mr. J. L. Monkman
Air Pollution Control Division
Environmental Health Centre
Tunney's Pasture
Ottawa 3, Ontario, Canada

Dear Mr. Monkman:

I am sorry I have been away and have not had an opportunity to answer your letter of October 19.

I have enclosed material which I think summarizes the Monsanto position on polychlorinated biphenyls. This represents the statements we provided environmental scientists who attended a month-long conference in July sponsored by MIT at Williams, Massachusetts.

The list of references is not complete as there have been several other published since the enclosed list was put together. Perhaps the best recent review on the subject is the one by Dr. Peakall in Bio-Science in September (copy also enclosed). There are a few errors in Dr. Peakall's article but it is essentially correct.

In brief, we are restricting the sale of PCB's to only those uses where escape to the environment can be controlled. In spite of allegations to the contrary, the decision was reached on the basis that there is growing evidence that PCB's do persist in the environment and may or may not be related to the effects on reproduction on some species of wild birds as has been shown in the case of some of the persistent chlorinated hydrocarbon pesticides. We are not restricting use because of any possible uncontrollable health hazard in industry nor threat to the public health with these products.

In addition to the enclosed summary indicating the status of our chronic studies with rats and dogs we do have a three generation rat reproduction study underway which appears to indicate that the lower chlorinated PCB's (42% chlorinated) may have an effect on the "mating index" in rats.

Further, studies with white leghorn chickens indicate that again the lower chlorinated samples may have an effect on egg shell thickness. This surprises us somewhat in that work done at the Patuxent Laboratories of the U. S. Fish and Wildlife Service have not found any effect in several species of wild birds. As the toxicity data develop, it is apparent that there is no correlation between the degree of toxicity and the degree of chlorination comparing one species of experimental animals with another. In the case of fish, it may appear that the lower chlorinated compound are more toxic while in rats the higher chlorinated may be more toxic.

I guess what this all adds up to is that we need the final results of all the various studies that are underway, not only those sponsored by Monsanto but those being conducted in numerous government and university laboratories, to reach a final answer as to what the threat to the eco-system may be. For emphasis, I repeat that we do not feel there is any threat to humans. Up to this time the toxicologists in U.S. FDA, USDA and Fish and Wildlife agree that the PCB's are no more toxic and probably less toxic than DDT to the mammalian species.

If you have any further questions after reviewing this letter and the enclosed please let me know.

Best personal regards.

Sincerely,

Elmer P. Wheeler
Manager, Environmental Health

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Enclosures