HOPKINS MARINE STATION

PACIFIC GROVE, CALIFORNIA 93950

27 February 1970

Mr. William B. Papageorge
Manager, Environmental Control
Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

Dear Mr. Papageorge:

My sincere thanks for your time spent with me on February 14th and for your information on the PCB's and actions being taken by Monsanto Chemical.

Further thought on the PCB problem points to the critical need for more information on the mechanism of release of these compounds into the environment. The enclosed reprint on codistillation of DDT with water points to the possible dangers of chlorinated hydrocarbon release if used in water emulsions or discharged directly into streams. Since the PCB's seem to be ubiquitously distributed and to be transferred through food chains similar to DDT, the modes of PCB distribution may be very similar. Since codistillation seems to be involved with DDT distribution it would seem also to be involved with the PCB's. I might also point out that research at the Marine Station has confirmed the rapid codistillation of DDT from seawater. As regards other possible modes of PCB distribution, I would strongly urge that the contribution by low temperature incineration be carefully assessed.

If you are interested in my own personal analysis, I believe that the use of PCB's should be drastically cut back in any area where release into the environment could occur. Indeed, it would also seem in the best interests of Monsanto to plan for elimination of uses in closed systems if suitable alternatives are available. Monsanto's de facto monopoly on PCB manufacture in the U.S. is obviously going to put the Company in great difficulty, especially if the PCB's turn out to be carcinogenic. Even if not, their occurrence in human milk can only bode an emotional reaction against the Company.

Again, speaking from a personal viewpoint, I left St. Louis very impressed with both your's and Monsanto's commitment to come to grips with this problem. The steps to make substitutions in the cutting oil line is an important step in the right direction. If this change is now being implemented I might have an opportunity to make reference to it in my Commonwealth Club address. If possible, I would appreciate receiving any directives or communications to your customers on this change.

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To assist in my evaluation of how this change will cut down on environmental contamination, an estimate of the pounds-per-year (or total poundage over the years) involved in the cutting oil line would be very helpful. I realize, of course, your desire not to divulge this information as regards competitors discovering a previously unknown market. However, such information seems critical and would be appreciated.

Sincerely yours,

David Epel

David Epel

P.S. I will certainly send you a copy of the text of the address.

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