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W.P. Papageorge
Monsanto Company
800 Lindberg Boulevard
St. Louis, Missouri
63166

Dear Bill:

I enjoyed meeting with you, Ira, and the other members of the Monsanto staff in the environmental quality area. This visit accomplished one of my major objectives, namely of getting Monsanto's point of view with respect to the hazardous chemicals in the environment. As you know I have became active in this area and will be conducting studies on behalf of the EPA designed to develop hazardous chemical control programs. I hope that I can blend together programs which represent the industries and the regulatory agencies points of view to the best possible benefit of all parties concerned.

Often, the first visit between a consultant and an industry is an awkward situation in that neither party really knows how they might best work together to solve the industry's problems. The situation at Monsanto is no different than other firms for whom I consult in that our first meeting served a useful purpose of letting us get to know each other a little. Particularly I now know some of the problems and approaches being used by Monsanto. Possibly Monsanto is somewhat aware of the ways in which I might be of assistance. There seems to be little doubt that I could work with Monsanto in developing a hazardous chemical screening program and thereby try to eliminate future PCB type problems.

As far as any future consulting arrangement is concerned I am already heavily committed to other firms who, at this time, appear to want to continue the consulting arrangements I have with them for extended periods. However, I would be interested in working with a primary chemicals manafacturer such as Monsanto where we could get together possibly once each quarter to discuss specific problems that the company is having with a particular product.

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In the case of Monsanto, I would suggest that we initially focus on the development of a screening program for new products. In addition to getting together to discuss a particular problem or problems, I would also try to keep Monsanto posted on any new developments which I feel would be of interest to them in the areas which are pertinent to a particular chemical that Monsanto is currently interested in.

Although not discussed previously, my consulting rates are $300 per day plus travel expenses, also I charge $40 per hour spent on behalf of a particular firm while in my office.

There were several points raised during the meeting which I wish to follow up on at this time. First, with respect to the International Field Year for the Great Lakes studies on Lake Ontario, I wish to reemphasize that as a member of the Chemistry and Biology Steering Committee for this study I can readily send to you samples of water, fish, etc. from various parts of Lake Ontario for your examination. The studies on Lake Ontario provide a unique opportunity to obtain samples from any location in the lake on relatively short notice. Please let me know if this is of any interest to you.

Secondly, during our discussion, questions arose about the work of one of my graduate students on natural water organics. This student was Dr. Ken Hall. Under separate cover I am sending his Ph.D. thesis for review by yourself and your staff. This thesis may be kept for a maximum of three weeks and then returned to me. Please feel free to Xerox any parts of it that are of interest to you. You will note that Ken did isolate some phthalates from natural water organic matter. However, these were not present in the organics prior to the degredation steps. It appears that the phthalates were part of the building block of the natural organics and not present as individual components in the water. This appears to be distinctly different from the situation that is occurring in southern Lake Michigan today.

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Other questions arose about the meaning of degradation. I agreed to send to you the name of the current chairman of the Water Pollution Control Federation Subcommittee on Biodegredation. His name is Robert L. Bunch. His address is Biological Treatment Research Program, Environmental Protection Agency, 4676 Columbia Parkway, Cincinnato, Ohio 45226. This committee was headed up by M.B. Ettinger who is now with Dow. Since the departure of Ettinger the committee has not been very active; however, the current chairman did contact the members a year or so ago asking about whether or not this committee should become active again. It appears that today with all the emphasis on biodegradation that some more specific definitions should be developed. If you wish I would be pleased to act on behalf of Monsanto in trying to stimulate the chairman to reactivate the committee or of course you may go directly to him suggesting that I suggested you take this approach. I fully agree with your position in that somewhat better definitions of degredation are needed in order to protect those such as Monsanto who make a legitimate attempt to determine whether or not a compound is degradable.

Please let me know if there is any interest on the part of Monsanto in the future on going consulting arrangements.

Sincerely yours,

Fred

G. Fred Lee, Professor
Water Chemistry

GFL/sw