DRAFT/DRB/OCT. 2, 1975

Mrs. Marilyn Kuechler
c/o ST. Louis Post-Dispatch
900 North 12th Blvd.
St Louis, Mo. 63101

Dear Mrs. Kuechler:

Please permit me to respond to the remarks and questions directed at Mr. Hanley and Monsanto Company in your letter as published in the Sept. 28 edition of the St. Louis Post-Dispatch.

I would like to suggest at the outset that you might well find a clue as to why Mr. Hanley chose to use the word "misunderstand" so often in his article on free enterprise in your very own comments.

This is not in any way to make light of your concern. On the contrary, given only the facts contained in the recent articles on PCB contaminated fish in park lakes, it is no wonder you were concerned and, indeed, questioned the responsibility of our actions.

We share your conviction that responsibility is a "two-way street" and suggest that the PCB contaminated fish articles are a classic case of how misunderstanding within the general public can result when the media for whatever reason does not fulfill its responsibility to accurately report the whole story.

If you read the intitial accounts of this incident in our two daily newspapers, you know that each devoted exactly one sentence to a description of PCBs. The Post-Dispatch said, "PCB (polychlorinated biphenyl) is an industrial chemical made by Monsanto Company here." The Globe-Democrat said, "The chemical is PCB, an industrial contaminant."

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"Educated" with only these one-sentence descriptions in the news coverage of this incident, it is only surprising that more concerned citizens have not demanded accountability and questioned "the kind of economics that allow an industry to produce harmful products." You should know that the Post-Dispatch did not contact anyone at Monsanto regarding this incident until well after the initial article appeared on the front page of that newspaper. The Globe-Democrat never did contact Monsanto regarding this incident.

Had these newspapers contacted us first and then devoted the time and space necessary to do a thorough and accurate story, I think you may have gained a better appreciation for what is a very complex problem and hopefully for Monsanto's willingness to meet its social obligations and responsibilities as well.

It is in this spirit that I offer the following facts and background information on PCBs as they might well have been included in the news accounts.

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The chemical structure of polychlorinated biphenyls (PCBs) has been known for nearly 100 years. Commercial production of the material was initiated in 1929 in response to the electrical industry's need for an explosion-proof insulating fluid for transformers. Mineral oil, the only known alternate material for this application, has a stability problem that makes it potentially hazardous.

Power surges in electrical equipment causes arcs - and enough of them can vaporize mineral oil to the point where the vapor will ignite. The unique properties of PCBs - inertness, fire resistance and their ability to not conduct electricity -- made them ideally suited for those applications where high-voltage arcing could occur; resulting in serious fires and/or explosions, damage to the equipment and a hazard to people.

As the unique properties of this material became more fully understood, many additional uses were found. For example, it was found that PCBs when used in capacitors had a major effect in reducing the electrical current (which would otherwise have to be generated to) ~~needed to~~ serve industrial and public ~~requirements~~ needs. (If PCBs were not used in capacitors) Their fire-resistant nature made them an excellent choice for use in heat-transfer fluids. Their inertness imparted long-lasting qualities to lubricants. They improved the waterproofing characteristics of surface coatings and offered other benefits to the manufacturers of printing inks, special adhesives and plasticizers.

(It has been calculated that) An additional 68 million barrels of oil per year would be required to make up for the resultant energy losses.

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PCBs, therefore, evolved as a truly unique class of chemicals which met important needs for both industry and society. Because of this, they have been sold by Monsanto Company and other producers, worldwide, for over 45 years. By the late 1960s, PCBs had become a growing, highly profitable, 80-million-pound-per-year worldwide business for Monsanto.

It was at about this time that the first sign of potential problems turned up when a Swedish biologist, using a new and totally unique technique, reported that he had identified PCBs in the bodies of fish. Monsanto and others began to study the Swedish work. Analytical methods had to be refined in order to separate PCBs from the other chlorinated hydrocarbons (like DDT) that were known to be present in the environment and to identify PCBs in parts per billion.

When these scientific investigations first confirmed the presence of PCBs in the environment in the United States in the early 1970s and long before information regarding their potential hazard was available, Monsanto voluntarily began its program of terminating sales of the materials to those open applications which could result in loss to the environment. At the present time, PCBs manufactured by Monsanto Company are sold only to the electrical industry where they are used as a dielectric fluid in "closed systems" such as transformers and capacitors. There is no known alternate fluid available for these applications possessing the fire resistant characteristics virtually mandatory for these uses.

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In addition, representatives of the transformer and capacitor industries, utilities and governmental agencies have formed the American National Standards Institute Committee C-107 and promulgated guidelines for handling and disposing of dielectric fluids. The actions of this committee reflect the industry's understanding of the need for proper control.

Thus, the situation today is drastically different from conditions which existed only a few years ago. Prior to 1971, Monsanto sold some 80 million pounds of PCBs per year to literally thousands of customers. Today, with production reduced by 50 per cent, the 40 million pounds per year of PCBs sold by Monsanto is carefully used in the United States by less then 50 customers in the manufacture of sealed electrical equipment where it provides safety and energy saving benefits not otherwise obtainable.

In our manufacturing area we have taken a number of significant steps to prevent loss of PCBs to the environment. Control, unique in the industrial chemicals industry, has been achieved. In addition, we have installed a special high-temperature incinerator which completely destroys spent by burning. ~~for the proper disposal of unusable~~ PCBs. This service and other technical assistance is available to our customers on a continuing basis.

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These programs and our on-going research studies, aimed at developing an acceptable replacement dielectric fluid, have already resulted in the expenditure of millions of dollars and our efforts will continue.

We are also concerned regarding the presence of PCBs in the fish from Wisconsin which were stocked in local park lakes and are at a loss to explain the source of the contamination. Both state and federal regulatory agencies are actively studying the situation in Wisconsin.

We do not, however, feel that this unfortunate incident is our responsibility any more than would we hold a firearms manufacturer responsible for a wrongful act (deliberate or accidental) committed with his product or an aircraft manufacturer responsible for an accident caused by pilot error.

In our judgement, our restricted sales program provides benefits to society in the form of safety, reliability and energy conservation that outweigh by far any risk of potential harm to the environment. Consequently, as long as there is no acceptable, safe, proven alternate material available, we will continue to supply the electrical industry's needs for this essential fire resistant dielectric fluid. We are confident that the dielectrics industry will continue to support and maintain strict environmental control of PCBs.

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It is our considered opinion that we have accepted our responsibilities with regard to PCBs and submit that our actions, both past and present, are indicative of this acceptance.

I hope this has given you a better understanding of the complexities of the PCB situation. If you are still not satisfied that Monsanto has acted responsibly with regard to PCBs and would like to discuss it further, please let me know. I will be happy to put you in touch with one of our technical experts in this area.

Sincerely yours,

CC: Editor, Editorial Page
St. Louis Post-Dispatch