bcc: J. R. Eck
W. B. Papageorge
H. L. Minckler
E. V. John
P. S. Park

June 19, 1970

Mrs. Joseph L. Tucker
102 Aberdeen Place
St. Louis, Missouri 63105

Dear Mrs. Tucker:

Mr. E. J. Bock, President of Monsanto Company, has asked me to reply to your letter as I have been deeply involved in the problem of PCB's and the environment. Mr. Bock was very much impressed with the constructive concern expressed in your letter and you may be assured at the outset that all of us at Monsanto share this concern.

Too frequently, Mrs. Tucker, statements are made in the press or at public hearings by reporters and witnesses who do not have complete, factual information. In other cases, time and space do not permit the true expert to give the necessary detailed explanations. This kind of communication serves only to confuse or emotionally upset the public.

When Dr. Richard Gordon mentioned our plans for "stopping production of PCB's" at the Symington hearing, he was correct to a degree but time did not permit him to give a more detailed explanation of our plans in this area. We do plan to discontinue supplying PCB's for use in certain industrial applications where possible emissions to the environment cannot be controlled. However, in certain other applications we will continue to supply these products as we are certain that the necessary degree of control can be established. I will discuss this in more detail later.

The Globe-Democrat article of June 10, although reasonably well balanced, was too brief to put the problem and our solution in proper perspective. While headlines are made on accusations and exaggeration, the fact remains that Monsanto has made real progress in its efforts to control the use of PCB-containing products and to protect the environment.

Let me take a few paragraphs to detail what we have done.

Up to a few years ago, there was no one in the world, scientist or politician, who thought the PCB's were a threat to the environment.

Scientists in their search to establish DDT levels in the environment began to discover "interfering substances" which later were identified as PCB's. When this information first came to our attention, Monsanto cooperated fully with these scientists by exchanging research data, providing samples of our products, and carrying out duplicate analytical work in an effort to properly identify and measure the PCB's being found in nature. In fact, Monsanto has made important contributions to the development of analytical techniques which are now used to isolate these materials. We also began studies to determine whether the PCB's were highly toxic to animal life. Early results of these studies have indicated that the PCB's are not highly toxic materials and this confirms our own experience of over thirty years of manufacture where we have not encountered any serious health problems.

Our next step was to survey our manufacturing facilities and to tighten up those processes that might be a possible cause of environmental contamination. We alerted our customers to this possible threat to the environment and asked them to take serious steps to control PCB emissions. Their response has been excellent and they have cooperated with us fully in solving this problem. In some cases, customers are returning used PCB materials to us for reclaiming. Where it is not possible to reclaim the material, it is disposed of by a special high-temperature incineration process developed by Monsanto, producing harmless by-products.

Where PCB usages cannot be controlled, we are converting our customers to other available Monsanto products or refusing to supply further quantities of product. Incidentally, we believe that this is the first time that a U.S. company has taken such action voluntarily in the interest of the environment.

Finally, we have directed our research teams to work in two major areas:

1. Find a way to make the PCB's biodegradable so that they break down into harmless materials which do not build up in the environment.

2. To develop alternate products which retain the functional characteristics of the PCB's but present no threat to the environment.

We expect that all of this work will be completed this year and we believe that this program reflects the company's efforts to be a responsible corporate citizen.

I realize that this is a long explanation, but we are dealing with an extremely complicated subject and I hope that I have been able to give you a better understanding of the problem and why we are concerned with the negative and emotional articles which very often appear in the press.

The next logical question then, is: "Wouldn't it be easier for Monsanto to get out of the PCB business?"

A simple answer is, "We cannot!" Man and his society have become extremely dependent on these materials and we could not discontinue manufacture without creating extremely serious problems which would affect both the economy and our way of life. The PCB's have several unique properties and in many applications substitutes are not available. Let me give you an example: One major electrical equipment manufacturer has told us that if we discontinue the manufacture of PCB for use in transformers and capacitors, major blackouts would occur throughout the world. The PCB's are used as coolants for this equipment and as they are fire-resistant, will not explode, nor contribute to an existing fire, they have a highly important function.

Prior to the use of PCB's in this application, oil was a commonly used coolant fluid and transformer fires were extremely frequent and caused many deaths and injuries. Today, numerous state and local laws require the use of fire-resistant fluids as cooling agents in electrical equipment.

Transformers are what we call sealed or closed systems where we can monitor and control both usage and disposal of spent PCB fluids. These closed systems represent by far the major use of PCB's although this information has not always been correctly reported in the press. We intend to continue to sell PCB fluids for electrical uses as we believe this is a perfectly safe application and the fire-resistant properties of these fluids are extremely important to the well-being and safety of the population.

We will also continue to market the PCB's for closed system heat transfer uses where, once again, their fire-resistant properties are extremely important and contribute to the safety and welfare of operators working in many of the major industrial plants throughout the world.

It is our firm belief that by working with customers who are well aware of the environmental problem and are conscientiously working to achieve the maximum degree of control, we can protect the environment and

continue to make available these materials which are so vitally needed by man in his daily life.

In summary, this is our position: We have a six-point program underway to be completed this year. We will retain certain, very strictly controlled uses of PCB's because they are vitally needed by man. We will discontinue selling PCB's for those applications which we feel cannot be strictly monitored. This is the program that Dr. Gordon was referring to in his testimony.

Again, let me thank you for your very thoughtful letter. I do hope you now have a better understanding of this problem and Monsanto's role in solving it.

Very truly yours,

John Mason
Assistant General Manager

JM/gl

cc: Mr. E. J. Bock