Monsanto

W. B. Papageorge - General Offices

DATE April 17, 1970

SUBJECT Earth Day -- The Question of PCB?

REFERENCE

TO : Regional Vice Presidents
Plant Managers
District Sales Managers
U.S. Subsidiaries
U.S. Plant Communicators

As a result of recent publicity about polychlorinated biphenyl (PCB) and the possible threat this chemical poses to the environment, we have prepared background information for your use on Earth Day, April 22. We have anticipated some questions you might be asked and provided some answers.

Please do not present any Teach-In "visitors" with prepared handouts on PCB. You may use this information in verbal conversations should the occasion arise.

Press queries on PCB may be answered with a copy of the attached news release. Press queries for further information should be directed to E. V. John, Organic division public relations manager, in St. Louis.

W. B. Papageorge

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Attachment

[redacted]

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C.A. No. B-84-1103-CA

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QUESTION AND ANSWER SHEET ON POLYCHLORINATED BIPHENYL

This question and answer sheet, for verbal use only by Monsanto personnel, is accompanied by our recent news release replying to charges that PCB threatens the environment.

1. How was PCB first identified in the environment?

   Late in Feb., 1969, the San Francisco Chronicle carried a major feature story about "a menacing new pollutant" found in the San Francisco Bay area. The article was based on research done by Dr. Robert Risebrough of the University of California. In his search for residues of pesticides (DDT and DDE) he encountered "interfering substances."

   A few years prior to Dr. Risebrough's work, two Swedish scientists at Stockholm University's Institution of Analytical Chemistry reported they, too, had encountered these other substances. The Swedish scientists were able to identify some of these materials as polychlorinated biphenyls or PCB.

   Based upon this work, other scientists, in this country and throughout the world, have looked for and identified PCB.



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They subsequently asked themselves two questions -- is PCB a threat to the environment, and, how is PCB entering the environment?

Since PCBs are not broadcast or spread around the land, as are pesticides, the scientists theorized the source must be industrial wastes.

Monsanto Company has been in contact with many of these scientists and agencies throughout the world. Monsanto is as concerned as anyone about this potential problem. We are continuing our own research programs as well as cooperating fully with other studies.

Since Monsanto is the sole manufacturer of PCB in this country (there are other producers, worldwide), it was obvious from the beginning that we would be singled out for criticism.

2. Is PCB as hazardous to the environment as recent charges would indicate?

The question of hazard to the environment is relative. Some scientists have discovered it is harmful to certain species of fish and birds. Whether it is harmful to man is a question which is still under study.

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Recent charges, regarding the hazard to man, have been based upon technical bulletin toxicity descriptions and warning labels carried on shipping containers. These warnings are common throughout the industry. Users of industrial chemicals are accustomed to handling these materials with caution. As far as we know, at this time PCBs are not a threat to the world population.

3. What is Monsanto doing about this possible threat to the environment? (See attached news release.)

When the subject first came to our attention in 1968, we began a six-point program. The program consists of:

A. Working with scientists around the world to properly identify and measure PCB in the environment. Our contacts have resulted in meaningful exchanges of scientific data. This effort has been directed toward locating the source of PCB emissions.

B. One possible source of PCB in the environment could be from manufacturing facilities. For this reason, we have been modernizing many of our manufacturing techniques installing new pollution abatement devices and generally have "tightened up" our plant techniques.

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C. Earlier this year, we alerted all our customers to the possible threat posed to the environment by PCB. At the same time, we offered our technical services to assist them in the proper handling, use and disposal of these products.

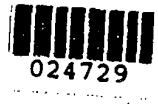
D. We have had under way for nearly a year toxiological studies to determine the effect of higher chlorinated hydrocarbons on animals. Early results from these studies indicate PCB is not highly toxic as has been charged.

E. We have also begun studies to determine the biodegradability of PCB. We have come to early conclusions which indicate lower chlorinated products are degraded in the environment. Higher chlorinated substances do appear to resist degradation. We are on the trail of some promising leads to solve this problem.

F. Finally, we are working toward the introduction of alternate products which will be either new formulations or rapidly degrading compounds which retain the functional characteristic of PCB but pose no threat to the environment.

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4. Is the public in any immediate danger?

It is our opinion that the public is not faced with any immediate danger to its health from PCBs. Contrary to the sensational headlines of recent days, PCB is not commonly found around the household.

The major market for PCB-containing products is in electrical equipment. It is also used in closed system heat-transfer applications. The "plasticizer" uses are very limited and are restricted to specialty products.

5. Since PCB does linger in the environment and could be a long-term threat similar to DDT, should it not be banned?

Monsanto Company and the electrical industry believe these products are so vital to our society that they should not be banned. One major electrical equipment manufacturer has told us that a ban on the use of PCB-containing products would mean major power failures throughout the world. We believe that strict control over the use and disposal of PCB, and substitution in uses that cannot be controlled, is the answer to this problem. We are working toward this solution.

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6. If PCB is only used in specialized or "closed systems", why would Monsanto publish a bulletin which said PCB is used in many other ways?

Our bulletin O/PL-306, referred to in recent publicity, was first published in 1960 when there was no evidence that PCB could be a threat to the environment. When the possible threat was brought to our attention two years ago, we discontinued circulation of the bulletin.

The bulletin was designed to be a "sales tool." It had many suggested applications in order to increase our sale of these chemicals. Monsanto is not unique in this marketing approach. To our knowledge, PCB has never been used in all these applications as has been charged.

7. Where does Monsanto produce its Aroclor products?

Monsanto produces Aroclor products containing PCB at its William G. Krummrich Plant, Sauget, Ill., and its Anniston, Ala., plant.

8. How long has the company produced these chemicals?

About 40 years.

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9. How much PCB has been produced?

Monsanto's production figures are confidential and will be released only to the appropriate governmental agencies.

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NEWS

Monsanto

FOR RELEASE

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MONSANTO REPLIES TO CHARGE THAT PCB THREATENS ENVIRONMENT

ST. LOUIS, April 10 -- Monsanto Company said today it was well aware of the concern over possible environmental contamination by polychlorinated biphenyl (PCB), an industrial chemical made by the company. The company began a six-point program in 1968 to properly identify and measure PCB in the environment. Steps have been taken to strictly control use of the chemical and replace those grades of PCB which linger in nature.

Monsanto's statement came in response to charges by Congressman William F. Ryan (Dem.) of New York that the discovery of PCB in the ecology represented a major threat.

Howard L. Minckler, Monsanto vice president and general manager of its Organic Chemicals Division, said, "We have and will continue to cooperate fully with governmental agencies investigating this problem. We also have been in close contact with our customers. Monsanto has spent over $1 million to verify or correct scientific reports, monitor the use of PCB and search for substitute products where needed. This program will be successfully concluded this year.

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MONSANTO: REPLY TO PCB CHARGE xxx year.

"It is unfortunate that Congressman Ryan evidently did not have all this information at his disposal. Just last month we participated in a U.S. Department of the Interior meeting where we exchanged ideas with some 40 scientists and told them of our findings and actions," Minckler said.

The Monsanto executive also noted that the use of PCB is misunderstood by some investigators. "For example, we do not know of any current use of PCB in insecticides. Even so, we are asking the U.S. Department of Agriculture to reject any insecticide which has PCB as an inert carrier," Minckler said.

"PCB is not a household product, as some have suggested," Minckler continued. "To our knowledge, it is not used in plastic food wraps, house paints, cellophane, asphalt or tires. The principal market is electrical applications where the chemical performs a vital function as an insulating fluid. In this use, PCB is completely sealed in a metal container. Other major markets employ similar closed systems."

Monsanto's PCB program was initially directed at proper identification of chlorinated hydrocarbons appearing in the environment. This research, confirmed by others, found only the higher chlorinated materials. At the same time, Monsanto undertook animal feeding studies which show PCB is not a highly toxic material.

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--3 MONSANTO: REPLY TO PCB CHARGES material.

The second part of Monsanto's investigation was coordination with all customers on a rigid critique of its PCB manufacturing units. Although loss of PCB during manufacturing was negligible, production techniques were further modernized and new pollution abatement device are continually being upgraded.

Monsanto has concentrate its further research on those few PCB compounds which degrade slowly. Alternate products for these grades, which retain the functional properties of PCB and present no potential threat, will be introduced later this year.

Minckler concluded, 'Monsanto is seeking the best solution to this potential environmental problem. Action not based on reason and scientific facts can only result in greater problems. For example, we have been advised by one electrical equipment manufacturer that an immediate ban on PCB would result in major power failures throughout the world. This is not the answer. Proper use of this vital chemical and substitution, where appropriate, is the answer.'

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