October 12, 1970

Dear

Perhaps you are aware of the polychlorinated biphenyl (FCB) environmental pollution problem. If not, then the attached material should provide background information.

The significance of this information is no longer can we dump scrap Aroclor or spent transformer askarel down the sever. Indiscriminate dumping of such material can lead to serious repercussions for the electrical industry. For this reason Honsanto is building an incinerator which will be ready some time during the first part of 1971.

Effective immediately, you may ship scrap material for incineration, at your expense, in 55 gal. drums, to the W. G. Krummrich Plant, Sauget, Illinois, Attention Supervisor, Dept. 246. We have tentatively set a 3¢ per lb. incineration charge. However, this is subject to change based on our operational experience with this unit.

Please use the astached label on all drums of scrap to be returned for incineration. These may be obtained, at no cost, by writing to the Supervisor, Dept. 246, W.G.K. Plant.

Additionally, we are working with the Rollinz Purle Company which is operating an incinerator in New Jersey. As soon as we can inspect this unit and give it our approval, we will negotiate a price for their service. Hopefully their energy will be in the 25% to 30% per gallon range including freight. This company hopes to construct similar units in 100 locations through out the United States.

In line with this program we would appreciate your supplying the number of gallons of scrap you expect to generate during 1971 and also a forecast for your 1971 Arcelor or transformer askarel requirements.

Should you have additional questions concerning this matter, places contact me through the Monsanto Service Center currently handling your purchase orders.

Many thanks for your cooperation on this matter. It will help us serve you better. Cordially,

> Randal: Graham Senior Fluids Specialist

RG 18g

Attachments:

1. Donald A Olson letter Feb. 18, 1970. 2. April 10, 1970 news release "Monsunto Replies to

Charge That PCB Threatens Environment".

3. July 16, 1970 news release "Monsanto Sights Actions Taken on Environmental Issue".

4. "FDA Guideline for PCB's in Food". Elmer G. Wheeler July 24, 1970 (with his attachments).

5. Drum label for return of scrap material to Illinois

plant.

Monsanto

Memisinto Company 800 N. Lindbergh Soulevard St. Louis. Missouri 83166 Phone: (314) 684-1000

February 18, 1970

Dear Sir:

Recently several newspaper and magazine articles have been published indicating that Polychlorinated Biphenyls (PCBs) have been discovered at some points in some marine, aquatic and wildlife environments. The quantities detected are said to be in the parts per million and parts per billion categories.

It is claimed that the PCBs found strongly resemble chlorinated biphenyls containing 54% and 60% chlorine by weight. Products which are sold by Monsanto under the trade names of Aroclor 1254 and 1260 do contain chlorinated biphenyls. In addition to Aroclor 1254 and 1260, Monsanto sells certain functional fluids containing Aroclor 1254. These include Pydraul 625, Pydraul AC, Pydraul AC - Winter Grade, Pydraul 540, Therminol FR-3 and certain dielectric formulations. Several other companies around the world also produce products containing chlorinated biphenyls.

As your supplier of Aroclome 1254 and 1260 and formulated products containing 1254, we wish to alert you to the potential problem of environmental contamination as referred to in the newspaper and magazine articles.

We would like to point out the following additional facts:

- 1. Products such as Pydrau 90,135, 230, 312, A-200, F-9, 150, and 60, Turbinol 153 and Therminol FR-1 and FR-2 are not formulated with Aroclor 1254 or 1260.
- 2. PCBs with a chlorine content of less than 54% have not been found in the environment and appear to present no potential problem to the environment.

We have developed, and are now testing, new formulations to replace the Aroclor 1254 and 1260 components in our Pydraul products. The new products appear to be equal in performance and to have similar physical properties.

We feel that all possible care should be taken in the application, processing and effluent disposal of these products to prevent them becoming environmental contaminants. Of interest to you may be an article in Chemical Week, October 29, 1969, regarding water pollution standards set by each state in the Union. It is attached. This article reflects that good manufacturing practice in the future may require that no product used by any company should find their way into waterways.

We realize that you have marketed or may now market transformers and other electrical equipment containing dielectric fluids which include Aroclor 1254 and 1260. Although these fluids are sealed into such equipment it is recognized that occasionally the fluid may be lost through leaks resulting from equipment misuse or equipment repair necessitating replacement of the fluid. Since the dielectric fluid contained in this equipment is only an incidental part of the over-all unit manufactured by you, we are not notifying the purchasers of such equipment of the potential environmental contamination problem described in this letter. We do recommend, however, that you notify such equipment users of this problem.

Sincerely yours,

Donald A. Olson
Director of Sales
Functional Fluids Group

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Attachment

Monsanto

NEWS

FOR RELEASE

E. V. John (314) 694-2891

PUBLIC RELATIONS DEPARTMENT Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 83168

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.

-- 2 MONSANTO: REPLY TO PCB CHARGE xxx year.

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"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.

-- 3 MONSANTO: REPLY TO PCB CHARGE xxx material.

The second part of Monsanto's investigation was coordination with all customers and 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 devices are continually being upgraded.

Monsanto has concentrated 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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NEWS

Monsanto

FOR RELEASE IMMEDIATELY 1970

E. V. John
(314) 694-2891

PUBLIC RELATIONS DEPARTMENT
Monsento Company
800 N. Lindbergh Bouleverd
St. Louis. Missouri 63168

MONSANTO CITES
ACTIONS TAKEN ON
ENVIRONMENTAL ISSUE

ST. LOUIS, July 16 -- Monsanto Company, sole U.S. producer of an industrial chemical called polychlorinated biphenyl (PCB), today said recent political charges and sensational headlines about the chemical causing "a major ecological crisis" completely ignore voluntary actions the company has taken to restrict use of the material.

"Our program began back in 1968 with the proper identification and measurement of PCB in the environment and will conclude this year by our unilateral action to restrict its use," Howard L. Minckler, company vice president and general manager of its Organic Chemicals Division, said.

He added that Monsanto had not been pressured into action by any legislation or organized group. "We have taken decisive action based on evidence that PCB is a persistent chemical which builds up in the environment."

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-- MONSANTO: MINCKLER'S REPLY TO PCB CHARGES xxx environment."

Commenting on a recent report that PCB can induce birth defects in animals, Minckler said, "Monsanto is not aware of any scientific data that indicates polychlorinated biphenyls may cause birth defects. The results of comprehensive toxicity studies, sponsored by Monsanto and using the usual species of laboratory animals, have failed to produce such effects.

"Scare tactics and sensational reporting do not serve the public interest nor solve ecological problems," he said.

"Only a few reports have stated why PCBs were ever developed and why they are used today. Nor have the consequences of not using PCB been explained.

"What should be emphasized," Minckler continued, "is that PCB was developed over 40 years ago primarily for use as a coolant in electrical transformers and capacitors. It is also used in commercial heating and cooling systems. It is not a 'household' item.

"Anyone who lives in a large city is familiar with power failures. During periods of peak power needs, air conditioning and refrigeration fail, lights go out and commuters are stranded. If power companies were to remove PCB from equipment, we have been told that major blackouts would occur throughout the world.

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-- 3 MONSANTO: MINCKLER'S REPLY TO PCB CHARGES xxx world.

"PCB is used in electrical equipment as a safety fluid. It has replaced combustible oil products which have, on many occasions, exploded and burned, causing deaths and injury to human life. Today state and local laws all over the country require the use of non-flammable fluids in certain electrical equipment as a safety feature. At the moment, there are no substitutes available which equal the safety performance of PCB."

Monsanto said it intends to continue selling PCB for "closed-system" uses such as electrical components and heat-transfer systems. "With rigid control over where the product goes, how it is handled and disposed of, we believe the safety functions of the product can continue to serve society and the environment can be protected," Minckler said. "We are discontinuing sales into 'open systems' -- adhesives, sealants, chlorinated rubber, specialty paints, etc.

"For other uses, such as fire-resistant hydraulic fluids, where PCB cannot be strictly controlled, we have reformulated some fluids and they are on the market. The new products contain other fire-resistant ingredients. We will continue to develop alternate formulations which do not contain persistent PCB. We will not abandon hydraulic fluid users," Minckler commented, "as has been reported."

-- 4 MONSANTO: MINCKLER'S REPLY TO PCB CHARGE xxx reported."

Monsanto has also established a new system for disposal or recycle of spent PCB. A special high-temperature incinerator will break down PCB into harmless materials. The company also regenerates spent fluids for reuse. The incinerator will be offered to customers who cannot otherwise destroy or regenerate their old fluids.

"Although loss of PCB from our manufacturing plants has been negligible, we have further tightened up our production techniques and installed new pollution abatement devices," the Monsanto executive said.

"I repeat," Minckler concluded, "our program was initiated and conducted by Monsanto alone. It will be concluded this year. We believe it is a position any responsible company would take."

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Elmer P. Wheeler, Medical Dept.

July 24, 1970

PDA Guideline for PCB's in Foods

H. S. Bergen, HBING

J. Mason, JMASO

W. B. Papageorge, WPAPA J. E. Springgate, JSPRI

FPA

P. S. Park PPARK

Attached is a page from Food Chemical News of July 29, 1970, reference to the above subject.

This adoption of "administration guideline levels' does not constitute a FDA regulation. It is, however, a basis for FDA regional offices and state food laboratories whether in departments of health or agriculture to seize and destroy (or declare unfit for human consumption) fish and milk which contain levels of PCB's above 5 ppm and 0.2 ppm respectively.

Elmer P. Wheeler

EPW: Ju

Enclosure

Rosenthal (D-N.Y.) of the House Consumer Inquiry subcommittee. He wrote to USDA Secretary Hardin to request the Department to conduct a survey "to determine whether a statistically significant number of over-age perishable and semi-perishable food items are being sold by retail stores" and "whether the institution of expiration dates, or, n the alternative, the establishment of uniform codes known to consumers, would be effective in preventing the sale of old merchandise."

FATTY ACID labeling "statement of policy will issue shortly," FDA's M. J. Ryan, Director of Legislative Services, said in a letter to Rep. Yates (D-III.) (See FOOD CHEMICAL NEWS, July 13, Page 2). Ryan noted that FDA-ers have recently met with representatives of the National Heart and Lung Institute and of FTC to discuss the problem but said, "We are still not in a position to announce a formal policy." Yates had asked why "coconut oil could not be labeled as coconut oil rather than as vegetable oil."

THE CHEMICAL FEAST, James Turner's book criticizing FDA food regulation, has been published in paperbound, selling for 95 cents.

W. DONALD GRAY, who spearheaded many investigations of FDA as a member of the staff of Rep. Fountain's (D-N.C.) House Intergovernmental Relations subcommittee, is becoming an investigator for Sen. Magnuson's (D-Wash.) Senate Commerce Committee. For the past nine months, Gray has been a legislative assistant to Sen. McIntyre (D-N.H.

SAIB was formally cleared by Canada's Food and Drug Directorate for use as a density adjusting agent for citrus-flavored beverages up to 50 p.p.m., in a Trade Information Letter (No. 336). A food standard proposal was submitted to FDA last week to clear optional use of sucrose acetate isobutyrate, and a Food Additive Petition has been submitted (See story, Page 27). SAIB is being considered as a substitute for brominated' vegetable oils, which FDD last week formally limited to 15 p.p.m. in citrus-flavored beverages.

POLYCHLORINATED biphenyls surveillance program of FDA is being directed towards support of State efforts on PCBs (See FOOD CHEMICAL NEWS, June 29, Page 29) The agency has adopted administrative guideline levels for PCBs of 5 p.p.m. in fish and 0.2 p.p.m. in whole milk. FDA's surveillance for PCBs actually started last year; before seizing Coho salmon the agency analyzed for PCBs to see if the residues were DDT or PCBs (See FOOD CHEMICAL NEWS, March 31, 1969, Page 18). Milk containing PCBs has been found in Ohio and in Maryland, but these have been isolated instances, and in one case the PCBs were traced to a silo paint.

FDA budget for fiscal year 1971 was reported by the House Appropriations Committee at \$89.5 million, the amount of the Administration request.

FOOD ADDITIVE Petition filed by Geigy and noted July 17 would amend \$121.2566 for antioxidants and/or stabilizers for polymers to clear use of 2-(3'-tert-butyl-5'-methyl 2'-hydroxyphenyl)-2H-5-chlorobenzotriazole in the ||manufacture of olefin polymers.

FDA'S Morton M. Schneider is switching from a Congressional relations post to the Office of Product Safety.

SAUGET, ILLINOIS 62201 MONSANTO COMPANY Department 246 009737 DSW