Monsanto

FROM (NAME & LOCATION) Pierre R. Wilkins - New York

DATE November 28, 1977

SUBJECT

REFERENCE

Fyi cc - EM

CC J. F. Hussey - Wash. D.C. 1920
R. C. Isham - B1ND
J. E. McKee - A3NB
[redacted]
A. Navarro - A3NB

TO : J. T. Nolan

This is in response to your note and Jim McKee's on what initiative Monsanto can take to clean up PCB residues.

Without disputing E. T. Mollica's point about an absence of laws requiring environmental clean up (memo, Nov. 11), GE was required by a legal settlement with the state of New York to pay $3 million specifically for clean up and $1 million for research. See attached.

I don't know if that settlement established a legal precedent. But it may well point to a legal remedy that will be invoked by other public or private jurisdictions in the future.

Further, it isn't unreasonable to assume that the question of who has responsibility for clean up will surface elsewhere in the future -- in the Great Lakes, for example, or wherever PCB damage is claimed. We know the problem will be with us for decades. We can assume it will continue to crop up in the public arena, with attendant publicity, in the years ahead.

An initiative we could undertake is to join with GE, do ourselves or underwrite a new, major research effort to seek new ways to treat PCB wastes. We might carve out for ourselves a special area of research in which we have skills and which holds promise as a route to a practical solution. By financing a major program, we could offer a positive (and attention-getting) answer to any future criticism that Monsanto has "washed its hands" of the issue. Conversely, we risk severe public and governmental criticism and legal consequences if our follow-through doesn't appear at least proportional to our responsibility for the overall problem.

Whether such a research program organizationally belongs in our new toxicological laboratory is for others to say. But it would seem to be a program that socially fits the specifications of that new environmental facility.

Pierre R. Wilkins

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attachment

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THE NEW YORK TIMES, SEPT. 8, 1976

G.E. TO PAY 3 MILLION FOR DUMPING PCB'S INTO UPPER HUDSON

Company Also Agrees to Help State Finance Research to Eliminate Pollutant From the River

By LESLIE MAITLAND

General Electric, in a negotiated settlement with the Department of Environmental Conservation, has agreed to pay $3 million toward cleansing the Hudson River of highly toxic PCB's that it dumped there. The company has also agreed to pay $1 million for research on ending the problem.

Under the agreement, which neither exonerates nor blames the company for polluting the upper Hudson River, the state will also set aside $3 million to help eliminate the chemical—polychlorinated biphenyls—from the water.

The Department of Environmental Conservation is expected to announce the terms of the agreement—regarded as a historic event by a number of conservationists because it severely penalizes a major pollutor—in a news conference in Albany today.

Two Decline to Discuss Terms

Martin Wasser, an assistant to Peter A. A. Berle, Commissioner of Environmental Conservation, declined yesterday to discuss the terms of the agreement, as did a spokesman for General Electric.

Sarah Chasis, a lawyer with the Natural Resources Defense Council, a public-interest law firm that represented several of the conservation groups acting as intervenors in the case, and participated in the negotiations also refused to discuss the terms of the agreement.

But she said that the chief concerns of the environmentalist intervenors had been to assure the cleanup of the Hudson River and to establish a precedent for holding pollutors responsible for the consequences of their toxic discharges.

Result of Hearings

The settlement is a result of quasi-judicial hearings ordered by the Department of Environmental Conservation and culminates months of haggling among the department, G.E. and the intervening environmental associations. It also puts to an end, at least for now, an issue that had attracted adverse attention to General Electric.

Last February, Prof. Abraham D. Sofaer of the Columbia Law School, the hearing officer in the case, found the company had violated New York State's water-quality standards by its PCB discharges from capacitor plants at Fort Edward and Hudson Falls, north of Albany. The discharges of the pollutant had come to public attention last fall, after high levels of PCB's were found in fish from the Hudson River.

Last April, the conflict led to the resignation under pressure of Mr. Berle's predecessor, Ogden R. Reid, whose uncompromising stance on the G.E. case

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G.E. TO PAY $3 MILLION FOR DUMPING OF PCB'S

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brought him into conflict with Governor Carey, who favored balancing economic and environmental concerns. Mr. Reid had other problems with Governor Carey, but this was considered the major one.

Before his resignation, Mr. Reid warned the public not to eat the fish from the Hudson and then closed the river to most types of commercial fishing.

PCB's have caused cancer in laboratory animals and a variety of illnesses among General Electric workers who have been in contact with the substance for a long period of time. The toxic chemical was discovered recently in the milk of more than 30 women living in Michigan. In Japan, more than 1,000 people became ill from PCB's that had leaked into rice oil used for cooking.

The Hudson River is believed to contain about 500,000 pounds of the chemical, which binds itself to particulate matter suspended in the water as well as to the sediment on the bottom of rivers, lakes and estuaries.

For about 45 years, PCB's were used in lubricants, paper coatings, hydraulic fluids, plasticizers, paints, inks and adhesives. Because of their inertness, fire resistance and ability to hold an electrical charge, they were regarded as well-suited to the manufacture of capacitors and generators.

Decline in Output Stressed

General Electric has been dumping PCB's into the Hudson for more than 25 years. Between 1966 and 1972 alone, the company discharged an estimated 84,000 pounds of it. The company says, however, that it has reduced its output in recent months, from about two pounds a day last December to a few ounces daily now.

Congress is moving toward legislating a ban on PCB production, but conflict exists over the best way to eliminate the substance that has already been deposited.

"We don't really know if dredging is good," said Dr. Karim Ahmed, a biochemist with the Natural Resources Defense Council "We need to do some pilot studies of how to get rid ofitand where t ogo with it nce it isout.Part of the agreement is to study the problem first."

Fishing Banned in Georgia River

ATLANTA, Sept. 7 (UPI)—The Georgia Board of Natural Resources today ordered an end of commercial fishing on the Coosa River because of PCB poisoning and urged sportsmen to throw back fish they catch on the river. The emergency 120-day ban was imposed from Rome to the Alabama line after laboratory tests of fish caught in the Coosa showed levels of PCB's up to 25 times the safe content.

The Commission of Natural Resources, Joe Tanner, said the pollutant was spilled over a 20-year period from a General Electric plant at Rome, where electrical transformers are manufactured. He said that since 1970, G.E. has been working to prevent PCB drainage from the plant.

Q: What is Monsanto going to do to clean up PCB from the environment (Hudson River or Lake Michigan)?

A: Ladies and gentlemen, let me put that question in perspective. There are essentially three phases to cleaning up the environment with respect to PCBs -- disposal of PCBs per se as liquids, disposal of electrical devices containing PCBs and the removal of PCBs from lakes, streams and rivers.

In the first two problems incineration is the best known technology for destroying PCBs. Adequate incineration capacity is available to completely destroy all PCB mixtures coming from used transformer fluids in the years ahead. A leading incineration service is also working on equipment that will shred a PCB capacitor and then incinerate the liquid dielectric material in one operation.

The question of disposal of PCBs in waterways is a very complex issue. There is no known technology that will guarantee 100% collection and disposal of PCBs from mud and silt bottoms. Dredging is not a practical solution. Not only are the costs extremely high, but more importantly the dredging operation itself recirculates PCBs, which have settled into the bottom materials, back into the waterway. Quite frankly until some method is developed that will guarantee a very high rate of recovery, dredging is impractical. In addition the disposal of dredge bottoms cannot be satisfied by incineration because of the contamination with water and mud. Therefore, such

materials would have to be disposed in land fills. That is a controversial solution to such problems.

Presently, development of specific bacteria to break down the PCBs are under investigation at a number of laboratories including:

-- Ontario Foundation in Canada
-- Institute of Fermentation in Japan
-- General Electric's Schenectady Lab
-- Also, a new method using high-energy electrons to destroy PCBs in water was reported by the Massachusetts Institute of Technology in November 1977.

We are hopeful that one or more of these methods will lead to a practical method of destroying PCBs in contaminated river and lake bottoms.

MIC Public Relations
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The following Questions & Answers are to be used only to respond to direct questions from the media.

Sidebar -- (January 1978 issues of NATIONAL GEOGRAPHIC and READER'S DIGEST will carry stories of PCB fish contamination in Lake Michigan and the Hudson River.)

Q: What is Monsanto going to do to clean up PCB from the environment (Hudson River or Lake Michigan)?

A: It's a very complex issue. Commercial incineration is the obvious best means of destroying PCB's in their natural liquid state. Adequate incineration capability is available to completely destroy all PCB mixtures coming from used transformer fluids in the years ahead. A leading incineration service is also working on shredding equipment that could shred a PCB capacitor and then incinerate the liquid dielectric material in one operation. Cement kilns which operate at very high temperatures are an additional promising source to destroy PCB liquids.

PCB's found in the environment of a body of water or in river or lake bottoms are not so easy to destroy. That's because incineration requires a PCB liquid uncontaminated with dirt or water for sustained operation.

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-cont.-

Q: What is Monsanto doing specifically about the problems you created?

A: As I indicated, the best way to rid the environment of PCB's is through high temperature incineration of liquid PCB's. That technology is well-advanced and Monsanto can offer nothing more here. The newer developments for bacterial or high-electron destruction offer a hope for clean-up of PCB's in the environment. We are continuously monitoring these and other developments with universities, our former customers and the U.S. Environmental Protection Agency. If our scientists feel any development could lead to a practical method of clean-up we would lend our support to move the solution along. Even though we have ceased manufacturing of PCB's we have provided samples for future environmental research work. We're also continuing our PCB medical research in laboratory animals to supplement existing data.

Q: Do you think Monsanto has acted in a socially responsible manner with PCB's?

A: We think we've acted in a highly responsible manner! Since the early 1930's PCB's have offered the electrical industry increased fire-resistant benefits in transformers and capacitors. The very inertness and fire resistance of PCB's offered people and equipment a degree of protection from fires and explosions over the alternative product, mineral oil. With the recognition that PCB's were highly persistent in our environment we took positive steps to limit their use. In 1976 we announced we would completely exit this business when a suitable replacement dielectric fluid was found. We attempted to develop an alternative dielectric fluid to replace PCB's. With industry acceptance of other, non-Monsanto products, we phased out of the dielectric fluids business in 1977.

We took these actions, not from the threat of government action, but from a realization that PCBs' historical benefits to mankind no longer balanced the newly discovered risks to our environment.

(following Q & A's may be helpful for plant-related inquiries)