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PCB's (Polychlorinated biphenyls)

If handled correctly, questions about PCB's need not damage the credibility of your CFOL message. After all, Monsanto's actions to curb the PCB problem have been praised as a model of corporate social responsibility. Answers should be direct, but there is no need to dwell on the subject.

Q. You have told us a lot of good news about chemicals. Why don't you tell us the bad news -- like PCB's?

A. PCB's, while they have caused some problems, have also taken some bad raps. The news media invariably refers to PCB's as "highly toxic" and "carcinogenic." In fact, the best available scientific evidence says they are neither.

Draft ? The National Cancer Institute recently reported that PCB's do not cause cancer. Some Japanese people did get sick after accidentally consuming extremely large amounts of PCB's. But even in that case it ~~was~~ Later uncertain whether PCB's were the cause rather than some other contaminant.

The real problem with PCB's is that they do not break down easily in the environment. The heavy liquid is almost inert. That's why it was so useful as a fireproof insulating material for electrical equipment. It certainly has saved lives in that way. But it is not soluble in water which is why it persists in our waterways. It is soluble in fat, which is why it collects in fish and sometimes in humans.

All this considered, it seemed better to use a substitute for PCB's if one could be found. As far back as 1971, Monsanto voluntarily stopped selling PCB's for any use other than closed systems such as sealed electrical equipment. We also advised our customers how to guard against PCB's escaping into the environment. In 1977, when suitable ~~fireproof~~ substitutes for electrical equipment had been found, Monsanto voluntarily quit making PCB's altogether.

Q. What is being done about the PCB's already in the environment?

A. There is no known technology that will guarantee 100 percent collection of PCB's from river bottoms and lake beds. Dredging, for instance, would recover some PCB's. But it would also recirculate some PCB's that had settled on the bottom.

Incineration is the best known method for destroying PCB's, and this technology is in use today. Researchers are working on theories that PCB's could be destroyed by bacteria, enzymes, or high-energy electrons. Monsanto is funding research ~~at the California Institute of Technology and Harvard University~~ to identify innovative practical approaches to removing PCB's from the environment. ?

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Q. Why were PCB's manufactured in the first place?

A. The electrical industry needed a fireproof insulating fluid for transformers. Mineral oils are also used as insulating fluids, but they can explode if an ~~transformer happens to burst~~. So PCB's came into use for transformers located in apartment buildings, railroad cars, and other places where a sudden electrical fire might cause disastrous loss of life.

Fire insurance, building and electrical codes in many parts of the country required the use of PCB's for electrical equipment in such locations. Thus, even after the environmental problems were understood, Monsanto had to think about its responsibility to keep this safety product on the market for essential uses. When Russell Train was administrator of the Environmental Protection Agency, he said that if Monsanto stopped making PCB's before a suitable substitute was found, it would shut down the electrical power industry and the railroads in short order.

Q. How did PCB's get into the environment?

A. Long before the environmental problems began to surface, other uses were found for PCB's. They were used in ~~heat transfer applications~~, sealants, adhesives and printing inks. Most of the PCB's found in the environment today escaped through these channels. These uses were shut off when Monsanto began restricting sales of PCB's in 1971.

There may still be instances where a PCB transformer bursts and causes some contamination. But under ordinary circumstances with proper cleanup and disposal, the environmental damage should be negligible.

Can we say?

- Today we know of no loss of human life resulting from exposure to PCBs. We do know of many lives where the resistance of these fluids saved lives.

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