The Boston Globe

JUL 17 1977

A harvest of poison . . .

Like the toxic substance PCB itself, the debilitation effects of its widespread industrial use linger on. Congress has passed a law eventually outlawing it. The only domestic manufacturer has promised to cease production. The industries still using it have developed substitutes. But if the Food and Drug Administration gets its way — and it probably will — PCB will cost the nation's commercial fishermen an additional $18 million in lost revenue annually for the foreseeable future.

The whole sorry episode is a stinging rebuff to those who maintain that environmental protection and economic gain are inevitably in conflict. It is also further — one is almost tempted to say superfluous — evidence for the idea that whatever the costs, whatever the difficulties, we must in our advanced technological society investigate thoroughly the potential environmental effects of new technology before deploying it.

The introduction of PCB (polychlorinated biphenyls) in the late 1920s was totally benign. It was developed as a fluid for electrical equipment that would both provide the necessary insulation and at the same time be fire resistent and therefore safe.

Eventually, PCB found a wide variety of industrial uses — in paints and stains, in carbonless copypaper, in various sealants. It was everywhere.

In the late 1960s, however, questions about the environmental effects of PCB were raised. It was found to cause failures in the reproductive organs of fish, skin diseases in humans and cancer in laboratory animals. The Monsanto Chemical Co., by then the only domestic manufacturer, decided to limit its use to closed electrical equipment.

But the saga had only begun. Two years ago, fish taken from the Hudson River were found to contain massive concentrations of PCB, which had been systematically dumped into river (with the knowledge of the state government) by General Electric plants at Hudson Falls and Fort Edward, N.Y., both near Albany. Much of the commercial fishing in the Hudson was halted.

The investigations set off a nationwide study of the PCB problem. It was found to concentrate, like DDT, as it was passed from animal to animal up the food chain. It was found in rivers around the country. One New Jersey study of workers at a plant where the material had been used sought to establish a statistical link with human cancer.

The whole episode spurred Congress after five years delay to pass a Toxic Substances Act, providing government regulation of industrial chemicals for the first time and specifically banning PCB within two years. Monsanto announced it would cease production this October.

But the problem remains. At the Pittsfield GE plant, residual quantities of the substance remain in pipes, drains and in the soil. When it rains, PCB flows into the Housatonic. In the Hudson, where PCB was dumped into the river at an alarming rate, the river-bottom sediment is loaded with the stuff. An experimental program of dredging is about to begin, but there are many who believe it will simply stir up the PCB and increase its ingestion by fish. It was recently found in the milk of some midwestern dairy cattle.

So now, to further limit the risk to public health, the FDA has proposed to reduce the permitted level of PCB in commercially marketed fish from the current five parts per million to two parts per million, the standard already set in Canada.

By its own analysis, the tightening of the permitted PCB levels will cost commercial fresh water fishermen $7 million of their annual $23 million catch and will cost salt water fishermen $11 million annually.

In the long run, of course, nature will absorb the prodigious quantities of PCB man has showered upon it. But as Rachel Carson wrote nearly 25 years ago, "In the modern world there in no time. The rapidity of change and the speed with which new situations are created follow the impetuous and heedless pace of man rather than the deliberate pace of nature." We all pay dearly for our heedless pace.

MONS 000891