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PCB causes ulcers, stillbirths, disfiguration

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It was a frightening symptom of the times. It was a graphic rebuttal to the human attitude of "it can't happen here."

It was Missouri's introduction to the spooky world of polychlorinated biphenyls...

Before 1975, you couldn't find one person in a hundred thousand who could tell you what PCB stands for, fewer than that who could tell you that group of chemicals poses a severe danger to human health. PCBs are used extensively because they resist heat in hot liquid cups, paints, food wrappers and many other products such as electrical insulators.

On July 31, the Conservation Department stocked fish in five St. Louis city park lakes. The fish had been purchased from a commercial source in Green Bay, Wisconsin. Six days later, the federal Food and Drug Administration notified the Department that the fish were contaminated with PCBs — averaging 50 parts per million whereas five ppm is the highest allowable by FDA.

There was only one thing to do and Conservation Department employes and others did it, feverishly, working long hours the next several days. They killed and removed the contaminated fish and destroyed the remains.

It was a drastic solution to a drastic problem. For most Missourians, it was the first time the name PCB had cropped up and many doubtless wondered what all the fuss was about. During the discussion about what to do, someone said, "These chemicals are as bad as DDT."

"No said Dr. James Whitley, chief of water quality for the Conservation Department. "They're worse."

Thus far, Missouri has been spared serious contamination by PCB, although, the chemicals are worldwide, and have been detected in small amounts in fish from Missouri streams.

Oddly, the only U.S. producer of PCBs is a Missouri Firm, Monsanto, which accounts for about half the world's production.

Environmentally—oriented Sen. Gaylord Nelson, Wisconsin, has introduced legislation to limit at first, then ban the use of PCBs.

Despite efforts to voluntarily limit the commercial use of PCBs to closed systems and to reduce U.S. production, the pollution has not been reduced," Sen. Nelson says. "This is due in part to their indestructibility; to the fact that U.S. users of PCBs are obtaining supplies from foreign producers for non-enclosed uses, such as in hand soaps, copying ink toners, and other products and to the fact that PCBs still are being spilled or liked, either accidentally or directly, into the environmen."

The Japanes because of intense industrlization and poor environmetal controls, seem to be huma guinea pigs for all the ha ors of the chemical world. More than 200 died of mercry poisoning in the 1956 incient.

In 1968, more than 1,000 Japanese who ted rice oil containing an estmated 2,000 ppm of PCBs sufired uterine ulcers, miscarages and stillbirths, infan disfigura-tion, acne, skin liscoloration and eye dischar.

PCBs are nt just a Japanese proble. They are everywhere anc they are more persistent nan DDT or any of the other long-lasting chemicals. "So tar as is known," says Sports Illustrated environmental writer Robert Boyle, "the only way in which PCBs can be destroyed is in a special incinerator at a temperature of 2,700 degrees Fahrenheit."

PCBs invade in virtually every way possible, not just through water. They are in snowfall and rain. They have been found in all tested ocean organisms, including creatures that live 11,000 feet under the surface.

"PCB levels have not declined in the Great Lakes since being discovered in 1970," says Howard Tanner, director of the Michigan Department of Natural Resources.

PCBs exceeding the Food and Drug Administration's maximum levels have been found in fish in the Great Lakes and the upper Mississippi River, with fatty fish such as carp and trout (fat is where the chemicals concentrate), the most prone to exceed the standards.

Chlorinated hydrocarbons, the chemical family to which PCBs belong, have been ticketed repeatedly over the years as threats to health, but many still are widely used. Some examples:

Mirex, widely used in the south to fight fire ants, has been called a cause of cancer by the Department of Interior, to name one. It is slow to degrade, has appeared in food chains and is concentrated in fish, shellfish and birds (as are most of its fellow chlorinated hydrocarbons).

Lake Carlyle in Illinois has fish containing more than the legal minimum of dieldrin, a cousin of PCBs and mirex. Dieldrin, a decomposed form of aldria, is more potent than DDT which was banned in 1972.