

6 agencies undertake

PCB study

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News Consumer Writer

Lake Michigan fish won't be the end of the PCB contamination story.

Six agencies have launched a government-wide investigation to determine just how much of the toxic chemical has been released into the environment through a host of consumer products over the last decade.

The task force is operating on the assumption that the chemical, widely used in many industrial processes, poses a potential danger to humans if quantities are consumed.

TO DATE, the public flurry has been limited to fish which apparently have become contaminated by PCB residues in the lakes. The PCB gets into the water as industrial waste material and also by washing off the soil.

But the FDA is considering many other foods. The agency has already set interim guideline limits of the chemical on eggs and fish shipped interstate.

District offices, including Detroit, are conducting extensive tests on 15 other food products to find whether PCB has leaked into the food from the packaging material.

The USDA is checking livestock to see whether their feed might be contaminated from a sealant containing PCB used in silo interiors.

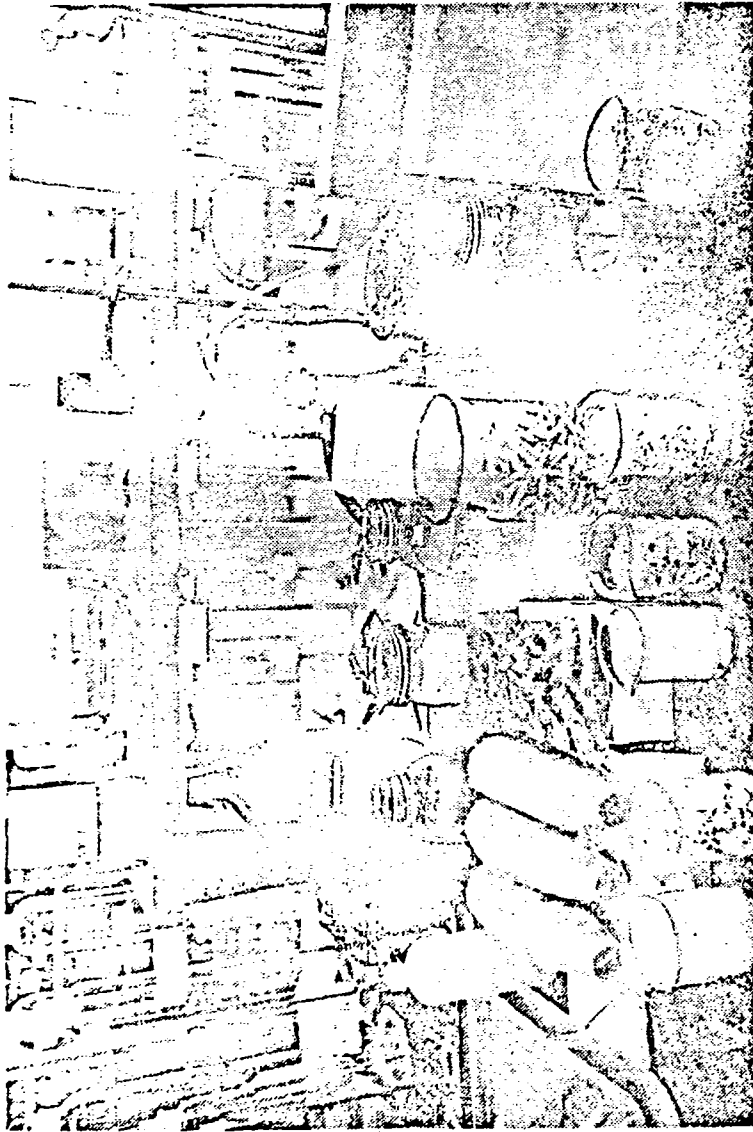
THE AGENCIES are looking especially closely at plastics, adhesives and printing inks.

They're also concerned about electrical and building materials and paper products.

The research is geared to find where PCB has seeped into the environment and eventually the human food chain.

Second, it's to determine how large a daily dose of the toxic chemical a human can safely ingest.

Although PCB — actually a family of compounds technically called polychlorinated biphenyls — has been used for some 40 years, only in the last few years has its potential danger to humans been realized.



—News Photos by Karl A. Payne

FDA RESEARCHERS in Detroit are working to find whether PCB from packaging has contaminated the food it contains. The foods,

mostly dried products, range from ice cream cones to macaroni. The first step in the test is to grind up the food (below).

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The FDA has set a limit of 5 ppm (parts per million) PCB in fish, but officials emphasize the limit is only a guideline and is subject to change.

Ralph Nader and other government critics have called the guideline arbitrary, and it may well be.

DR. ALAN HOETING, Detroit district FDA director, explains that until researchers determine more accurately what other foods have PCB contaminants and then how much PCB in total a human can safely sustain, the limits are at best approximate.

The human health hazard is uncertain, but many believe it to be potentially chronic.

In 1968 in a Japanese factory, PCB accidentally leaked from a closed system use and contaminated rice oil that was eaten by at least 600 persons.

Their afflictions ranged from genetic disorders to blindness to loss of pigmentation.

Schneider says the best data to date shows that PCB can cause liver and neurological damage.

THE JAPANESE ACCIDENT also illustrates that closed system uses of PCB can lead to dangers as well as open system uses.

Another accident in which chicken feed was contaminated this summer on the East Coast led to the FDA setting a limit of .5 ppm PCB in eggs.

Most dramatic is the FDA's nationwide testing of 15 food products to determine whether the cardboard packaging has leaked PCB into the contents.

Particularly, the agency is examining greyboard and other recycled papers which may have recycled printing ink containing PCB in the process.

THE FOODS contained in the packages being examined are crackers, bread crumbs and related products, macaroni and noodle products, pretzels, chips and specialty items, ready-to-eat breakfast cereals, prepared mixes such as cakes, pancakes and biscuits, dried milk and dried milk products.

Dried desserts and pudding mixes, infant cereals, cookies, refrigerated unbaked specialties, rice, oatmeal and farina, chocolate and cocoa products, grated cheese and cheese products, dried fruits and frozen fruit juices.

MONSANTO CO. technicians discovered the versatile chemical, and the company remains the only domestic supplier of it. According to a Monsanto spokesman, PCB was limited to highly technical industrial uses until the early 1960's.

Primarily it was used in liquid form as a coolant and insulator in large electric transformers. It was also used in industrial processing in heat transfer systems.

Early in the '60's, PCB became a direct component in a variety of consumer products, including sealants, plastic coatings, adhesives, printing inks, etc.

LOUIS F. SCHNEIDER, chief chemist at the Detroit FDA office, explains that PCB used for such products provides a chemical link between two other components.

Thus, it gives the material durability and flexibility.

PCB in such products—where it remains an intended part of the finished product—is called an "open system" use.

That's opposed to its original industrial processing use referred to as a "closed system" use.

In 1966, Swedish scientists testing for the pesticide DDT found an interfering substance which turned out to be PCB.

IT WAS THE FIRST indication that PCB left residues in the environment and it led to the belief that there is a potential danger to humans from the residues.

After 40 years of production, Monsanto began testing PCB to find its basic characteristics. Prior to the Swedish discovery, there were not even adequate methods developed to test a product to determine how much PCB it contained.

The company's tests led to their discontinuing the sale of PCB for any open system use in August, 1970.

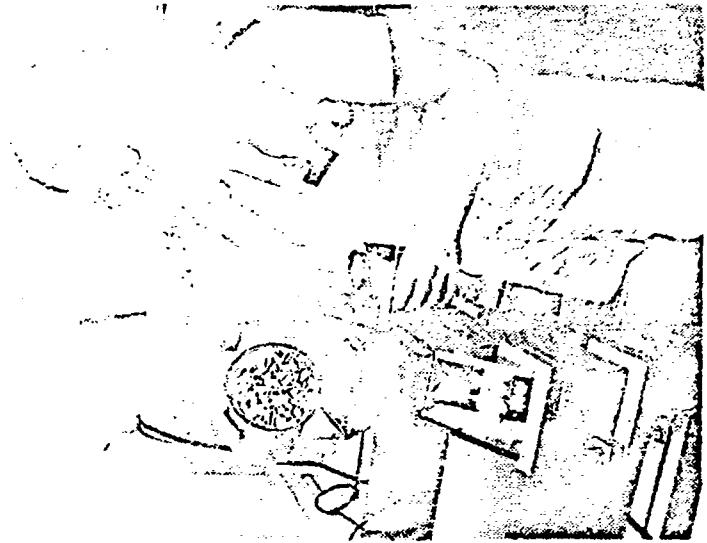
Despite the fact that Monsanto is the sole domestic producer of PCB, the company refuses for "competitive reasons" to say how much was sold for open system uses.

A spokesman says only that the company supplied producers of many consumer products for about a decade before voluntarily banning the sale.

THE SPOKESMAN adds that the company has been able to supply substitute chemicals to those manufacturers.

The government researchers then are trying to track down the PCB used in products now on the market and determine whether they might contaminate food.

Fish are an obvious first step since residues easily find their



Coho PCB level high

Levels of PCB found in Lake Michigan fish particularly coho salmon, prompted the Michigan Department of Agriculture last week to recommend that residents eat the fish a maximum of once a week.

Laboratory technicians, who are working 24 hours a day testing all varieties of fish, found levels in coho often reached 11 ppm, as compared to an FDA guideline limit of 5 ppm.

The public warning came as a agriculture department recommendation because the FDA controls only food shipped interstate.

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