

factories in transformers such as utility poles, and as heat-exchange fluids in many industrial operations. The sole maker of PCB in the U.S. is Monsanto, which uses the trade name Aroclor.

It is generally believed that PCB finds its way into the environment as the result of burning discarded plastics and other materials in which they are used and through leakage from machinery in which liquid PCB is used.

In July, 1971, for example, a heat exchanger, used in the manufacture of a chicken feed supplement leaked. PCB got into the supplement and, eventually, into all the chickens that ate the feed. Some 77,000 chickens were destroyed to prevent their reaching the market.

Dr. Albert C. Kolbye Jr., deputy director of the F.D.A.'s Bureau of Foods, spoke at the Chemical Society meeting and said that despite the widespread presence of PCB in the environment, the chemical was not considered now a threat to human health.

"I think the problem is under control," he said. "We have a very large margin of safety for PCB as long as we avoid undue, accidental exposures."

Dr. Kolbye said that although his agency's tests showed that PCB was present in many foods, the levels consumed by the average person were only one-tenth as high as the maximum safe level set by the food and drug agency—5 parts per million.

Scientists have found that for many persistent toxic chemicals, the risk of damage to health depends not only on the concentration of the chemical at a given moment but on the length of time a person or animal is exposed to the chemical.

The F.D.A. analysis of fish showed that of 670 samples tested, 84 per cent contained PCB in concentrations ranging from trace amounts up to 35 parts per million. Eggs, the second most common source, showed PCB in 29 per cent of 530 samples tested. Cheese and milk were the least likely (6 and 7 per cent) of the foods tested to contain PCB, although in one case a milk sample had a concentration of 27.8 parts per million.

In another report to the Chemical Society, Dr. Anne R. Yobs, of the Environmental Protection Agency's Office of Pesticide Programs, said there was now substantial evidence that many human beings have acquired levels of PCB in their tissues.

The tests were done on fatty tissue removed from 637 persons either during surgery or at autopsy. The samples came from persons from 38 cities in 18 states.

Just over half, 50.7 per cent, contained measurable levels of PCB, the concentrations ranging from trace levels to 16 parts per million.

FOODS STILL CARRY A TOXIC CHEMICAL

After 3 Years, F.D.A. Finds
One in Five With PCB

By BOYCE REVENBERGER

Three years after the Food and Drug Administration's first findings that some foods were contaminated with a toxic industrial chemical known as PCB, quantities of the persistent substance are still being found in food on grocery shelves.

Of some 3,500 samples of fish, cheese, milk and eggs tested in the last 18 months, one out of five contained measurable levels of PCB, an F.D.A. administrator reported during last week's annual meeting of the American Chemical Society here.

The report was one of 23 on various aspects of the PCB problem delivered during the week-long meeting. In general, the reports indicated that PCB was one of the most dangerous (hundreds of times more toxic than DDT, for example) and most widespread of synthetic chemicals.

One Government researcher reported evidence suggesting that half the human population may already carry quantities of PCB in its flesh.

There were also reports that steps have been taken to reduce the risk of additional quantities of the chemical "escaping" from its industrial applications and entering the ecosystem where it could cause birth defects and liver damage.

In Arctic Animals
Among the reports were these:

Scientists from the Canadian Wildlife Service have found quantities of PCB in polar bears, seals and Arctic fish. The researchers said the nearest sites of industrial usage of PCB are thousands of miles south of where the animals live.

Analysis of water and bottom sediment samples by the U.S. Geological Survey has detected varying levels of PCB in the waters of New York, Connecticut, Pennsylvania, Virginia, South Carolina, Florida, Mississippi, Texas, Arkansas and California. Tests in other states are expected in 1973.

Michigan State University researchers found one reason for an almost complete cessation of reproduction in milk ranches in the Great Lakes region was the presence of PCB in the coho salmon fed to the milk. A level of 5 parts per million of PCB in the feed caused complete reproductive failure.

PCB, which stands for polychlorinated biphenyl, is one of the most widely used industrial chemicals. Various types of PCB are used as plasticizers, adhesives, sealants and printing