ROANOKE, VA.
TIMES
D. 62,500 S. 106,000

SEP 13 1976

Chemical Linked to Cancer

# Omnipresent PCBs Cause Ecological Concern

By ROBERT A. WILLIS
Associate Editor of Editorial Page

MAYBE YOU read, a few weeks ago, that the House of Representatives had voted to ban, within three years, the manufacture of a class of chemicals called PCBs. Maybe you shrugged and wondered what that has to do with you.

Maybe you shouldn't have. Because you have PCBs in your body. So does everybody—just as everyone now has within himself or herself some trace of DDT. Like that pesticide, PCBs enter the food chain and resist decomposition—and have been linked to cancer and birth defects, water pollution and the contamination of wildlife.

Unlike DDT, the primary purpose of PCBs is not to kill anything. PCBs—polychlorinated biphenyls—are, in one reporter's description, "a class of colorless and tasteless compounds with a thousand industrial uses as insulators, sealers, heat transfer fluids and ingredients of inks, paints, lubricants and plastics." They were first produced commercially in 1929 and came into large-scale use during and after World War II.

It was not until 1966, when a Swedish ecologist identified PCBs in some Baltic fish, in the body of an eagle, and in eagle feathers from museum specimens, that

*"In 1969 the Food and Drug Administration began surveying all types of food; it found that of 17,000 samples, 3,505 contained PCBs."*

PCBs' effects began to be suspected. The chemical traces were not found in any eagles, or their feathers, if the birds had been taken before 1944—the year that PCBs began coming into widespread industrial use.

Evidence of PCBs' persistent and widespread presence has accumulated since 1966. In 1968 more than 1,800 Japanese fell ill from consuming rice oil that had been tainted by PCBs that leaked from a heating system. The federal Food and Drug Administration has set acceptable limits of PCBs for foods and several years ago banned Coho salmon from Lake Michigan for human consumption because the fish contained more than five parts per million of the chemical residue. In 1969 FDA began surveying all types of food; it found that of 17,000 samples, 3,505 contained PCBs.

More recently, the Environmental Protection Agency (EPA) commissioned a nationwide survey that found measurable amounts of PCBs in 48 of 50 samples of mothers' milk tested in Virginia, Maryland, North Carolina, South Carolina, Alabama, Georgia, Florida, Pennsylvania, New Jersey and Michigan.

FDA's "provisional tolerance level" for PCBs in whole milk is 2.5 parts per million; the mothers' milk sampled in North Carolina averaged 2.6 ppm and in Maryland 2.5. In one unnamed state it was 10 ppm, a level of contamination usually associated with industrial accident; this figure may not be a valid one.

The survey is at a preliminary stage, but the PCB amounts in those 10 states were described by a federal official as "worrisome." Dr. David Rall, director of the National Institute of Environmental Health Sciences, said he had no advice now for pregnant or nursing mothers except to avoid eating any fish from the Great Lakes or Hudson River, where commercial fishing has been banned because of PCBs.

Actions to limit spread of PCBs have been going on for a number of years. The Monsanto Co. in 1970 announced it had withdrawn PCBs from sale for uses that could lead to food contamination or other uncontrolled dispersion into the environment. PCB sales in the United States, at a high that year of 75 million pounds, were halved by the next year, and in 1972 Moonsanto restricted PCB use to "confined" systems.

That was an important advance in PCB control. But biologist-ecologist Barry Commoner has pointed out (Environment magazine, July/August 1973) that workers in plants that use PCBs are still subject to relatively high levels of exposure to the chemical, and that traces can cling to the body or clothing and be brought home.

This is not the only way in which industrial PCBs leak into the environment. Commoner cites one estimate that "1,500 to 2,000 tons of PCBs per year are 'lost' to the air, 4,000 to 5,000 tons per year to fresh and coastal waters, and 18,000 tons per year to dumps and landfills."

You may disagree with Rep. Gilbert Gude, R-Md., who told the House that "We have identified a mad dog in PCB and it's time to get rid of it." The amounts of PCB loose in the environment may, unless concentrated, be too minute to worry about. Some day, though, we may know more about PCBs' effects. Even if they're banned, because of their resistance to chemical breakdown they'll be around for generations to come.