Including Virginia, Maryland

PCB Is Discovered In 17 of 39 States

From News Dispatches

The toxic chemical PCB, widely used for industrial purposes, has been found in unexpectedly large amounts in water and sediment samples in 17 of 39 states tested, including Maryland and Virginia, according to government scientists.

The chemical, technically known as polychlorinated biphenyls, is similar to the insecticide DDT in its chemical makeup and is used in such products as transformers, dyes, paints and plastics. Its precise, long-term effects on humans is unknown.

The PCB findings—contained in a paper presented to the American Chemical Society last month by three U.S. Geological Survey scientists, led by Hans, J. Crump-Wiesner—were based on analysis of more than 2,000 water and sediment samples from streams and lakes throughout the U.S. between January, 1971, and last June.

"We expected to find traces of PCBs at sampling points near industrial centers, but were surprised to find detectable levels in 17 of 39 states covered by the sampling," the scientists said. "A safe level for PCBs has not been generally accepted to date.

"We found PCBs in river water, some newly developed real estate lakes, and at two U.S., Geological Survey stations located in relatively remote areas unaffected by man. We also found lake and stream sediments to have relatively high concentrations of PCB residues," they said.

PCBs can enter the aquatic environment by atmospheric fallout from low-temperature incineration of solid wastes, from spills, from sewage and industrial waste fallouts, the study reported.

The Food and Drug Administration limits the PCB concentration in food products to 5,000 micrograms per kilogram, or five pounds per million pounds. The Environmental Protection Agency has recommended a maximum limit of 0.01 micrograms per liter, or one pound in 80 billion quarts of river and lake water.

The study said that detectable concentrations of PCB, first manufactured 40 years ago, in river and lake water ranged from 0.1 to 4.0 micrograms per liter. Concentrations in sediments in streams and lakes ranged from 5 to 3,300 micrograms per kilogram. A kilogram is 2.2 pounds.

The specific sampling points in Virginia and Maryland were not immediately available, the Geological Survey said. The agency listed composite results for the two states:

- There were no detectable PCB traces in two Maryland water samples, while the chemical was found in five of 11 sediment samples in the state, ranging from 10 to 1,200 micrograms per kilogram.
- In Virginia, one water sample had PCB out of four test spots, a reading of 0.1 microgram per liter, while eight of 10 sediment samples in the state contained PCB, with a range from 5 to 80 micrograms per kilogram.

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