RICHFORD, VT.
JOURNAL GAZETTE
W. 800

OCT 2 1975

USEPA Director Gives His Opinion on PCB's

By JOHN A. S. McGLENNON
Regional Administrator
USEPA

The Commissioner of the New York State Department of Environmental Conservation recently recommended that the public not eat striped bass, small-mouth bass, white perch, or white suckers from the Hudson River, or salmon, lake trout, or brown trout from Lake Ontario. Extensive testing showed these fish to contain dangerously high levels of PCB, a toxic substance with numerous industrial applications including brake fluid, fire proofing, paint and ink solvents, textile coatings, epoxy glues and cements. However, since 1972, the use of PCB's has been limited to closed electrical systems. PCB's are still used in transformers and in making printed circuit boards, because no other known chemical has the same stability, plus high resistance to heat and explosions.

PCB stands for polychlorinated biphenyls, a family of chlorinated hydrocarbons closely resembling DDT, which was banned by the Environmental Protection Agency in 1972 because of its persistence in the environment, sometimes up to fifteen years after application. PCB's are even more persistent than DDT, and in addition are known to have serious human health effects. PCB's are essentially unalterable by any naturally occurring biological, chemical, or physical process. In fact, the only known way to destroy them is by incineration at a temperature of 2700 degrees F. This extraordinary stability allows PCB's to bioaccumulate in fish by a factor of up to 7,500. Small fish may eat small amounts of the chemical, larger fish eat the smaller fish; and man, as the last link in the food chain, ingests all the PCB's accumulated in all the fish down the chain. This can be a toxic amount.

The health effects associated with PCB's include eye discharge, acne, ulcers of the uterus, abnormal skin pigmentation, and reproductive failure. Concentrations as low as 2.5 and five ppm (Parts per million) have produced adverse effects in monkeys including loss of facial and neck hair and development of rough skin texture and acne. Pregnant females showed an abnormally high incidence of miscarriage, resorbed fetuses, still births, and undersized infants. Reproductive failure has also been noted in birds and mink that feed on PCB-contaminated fish. These animal effects were confirmed for humans in Japan in 1968, where over 1,000 people suffered adverse health effects after using rice oil that had been contaminated with PCB.

Clearly, PCB's present a serious threat to human health, and unfortunately the New York score is not an isolated case. PCB's have been discovered in significant amounts in Lake Michigan, Lake Pepin (Mississippi), and Southern California. In order to determine what hazards exists in New England waters, a study is currently underway to determine the levels of PCB's in food fish. Prior to the tests, there was a great deal of concern about PCB's levels of fish taken in coastal waters, because striped bass that spawn in the Hudson River very often migrate to coastal waters off New England. Final results of the testing will not be available for a few months, but preliminary data indicate that PCB levels are well below the five parts per million tolerance level established in 1972 by the U.S. Food and Drug Administration. It is quite possible that the final results will show even lower levels of the chemical than the preliminary data suggest.

The Regional EPA is also conducting tests of ambient air and water quality, and bottom sediments in the Housatonic River around the General Electric plant in Pittsfield. The General Electric discharge is the only known industrial source of PCB's in New England waters. The discharge is well within the average .25 pounds per day limit specified by the company's federal discharge permit. For purposes of comparison, prior to September 10, 1975, the General Electric plant in New York discharged an average of thirty pounds per day into the Hudson River. The Pittsfield plant disposes of almost all of its waste PCB's through a special incinerator. The less than one pound per day that is discharged is dissolved in the water and cannot be removed by any known process. The results of the testing around General Electric, Pittsfield, should also be available in a few months.

In addition to these tests, the Agency has also requested from 84 companies, including eight in New England, detailed information concerning their activities involving PCB's, including details on their uses of PCB's and monitoring data in the effluent and in receiving waters. We hope that this information will help us to develop a regulatory approach which takes into account the realities of current industrial activities.

However, a great deal of testing and study remain to be done before we can be confident of an effective, enforceable approach to controlling PCB's in all parts of the environment. Some of EPA's on-going studies concern (1) the feasibility of attaining a water quality criteria level of one part per trillion; (2) control technology for PCB's; (3) human health and ecological effects; and (4) the need for a drinking water standard for PCB's.

In summary, I do not think that PCB's present any immediate cause for alarm in New England. There is no need for New Englanders to stop eating striped bass or any other fish because of possible PCB contamination. However, I believe that it is crucial that we continue the controls on PCB discharges that we have already begun in this region, and that we be prepared to take any new regulatory action indicated by the results of nationwide studies and testing.

MONS 033283