Albany Times Union
8/20/75

Area PCB, cancer link probed

By DONNA HALVORSEN

Because of concern over possible health hazards from the chemical PCB, the state Health Department is studying the incidence of cancer and deaths from cancer in the Hudson Falls-Ft. Edward area where heavy concentrations of the chemical were first found in Hudson River fish by the Environmental Protection Agency.

Dr. William S. Burnett of the department's Bureau of Cancer Control said the survey, using information contained in the New York State Cancer Registry, will deal specifically with liver cancer and possibly pancreas and bladder cancer cases. It will cover Warren, Washington and Saratoga counties from 1950 to the present, he said.

But, concurred about alarming the public, Dr. Burnett said liver cancer is still an "extremely rare" disease. Primary liver cancer claimed the lives of 144 persons in New York state, outside of New York City, in 1972.

Aside from one plant in Buffalo, the General Electric Co., which has plants in Ft. Edward and Hudson Falls and has EPA permits to discharge gradually diminishing amounts of PCB until 1977, is the only upstate user of PCB, a spokesman for the state Environmental Conservation Department said Tuesday. Other plants, also using the chemical in the manufacture of electrical products, are located at Brooklyn, Jamaica, Bay Shore and Mt. Kisko.

The initial EPA testing showed fish taken from the Hudson at Hudson Falls and Fort Edward had concentrations of PCB ranging from 78 to 350 parts per million. The level set by the federal Food and Drug Administration as tolerable for human consumption is five parts per million.

An unpublished study conducted by Dr. Renata Kinslow, medical research officer in the toxicology branch of the Atlanta, Ga., Center for Disease Control, shows that 26 of 184 rats fed 100 parts per million of PCB over a two-year period developed malignant liver tumors while only one of 173 control rats developed malignant liver tumors.

In addition, 165 of the experimental rats and none of the control rats developed benign tumors which, Dr. Kinslow said in a phone interview Tuesday, could have the potential to become malignant.

The study was begun in 1972, when she was a medical research officer for EPA, and completed in 1974. Its results are due to be published by the Journal of the National Cancer Institute. The Atlanta center is an affiliate of the U. S. Department of Health, Education and Welfare.

The only conclusion that can be drawn from the research, Dr. Kinslow said, is that PCB has a carcinogenic or cancer-producing effect "of a very low order" in rats but only when the animals are exposed to the chemical for a lifetime. Previous studies have included fewer animals studied over a shorter period of time, she said.

Dr. James R. Allen of the University of Wisconsin Medical School is also conducting PCB research, funded by the National Institutes of Health and the Wisconsin Sea Grant Program. His research animals are adult monkeys, which have been fed from 2.5 to 300 parts per million of PCB in their diet regularly.

Even at 2.5 parts per million, he said in a phone interview, the monkeys showed signs within two months of "PCB intoxication," including redness of skin, facial swelling, acne, loss of hair and irregularity of the menstrual cycle.

In his studies, he said, he has "not yet reached a level of PCB which is non-toxic" and urged that human exposure to the chemical be carefully regulated "until we know more about it."

The animals fed 25 parts per million were bred and the "six or so" infants born so far were "extremely small," did not regain their normal size and began to show the same signs of PCB intoxication as their mothers through a high level of PCB in the mother's milk, Dr. Allen said.

He said the monkeys fed five parts per million were able to conceive but unable to maintain their pregnancies and out of eight animals, only one infant was born.

Dr. Allen stressed that his experiments do not duplicate the human exposure to PCB and said he is now setting up an experiment to more carefully simulate the PCB consumption that human beings might experience in an average diet.

MONS 031332