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PCBs found in mother's milk

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MADISON — PCBs, the hydrocarbons similar to DDT that have been found in Lake Michigan, now have been discovered in humans in both Illinois and Michigan.

Tests are being conducted in Wisconsin at the present time to find out if born, as in neighboring states, the PCBs (polychlorinated biphenyls) are present in mother's milk, according to Valdas Adamkus, deputy regional administrator of the U.S. Environmental Protection Agency's Region V.

Adamkus, headquartered in Chicago, visited here Friday to present agency awards to 16 Wisconsin residents. Region V of the EPA encompasses Wisconsin, Minnesota, Illinois, Indiana, Michigan and Ohio.

The hydrocarbons, which are extremely stable and are used as insulator materials and coolants in electronics, were only recently discovered in mother's milk. Adamkus said the discovery may speed a complete ban on the production and use of the chemicals in the United States.

The EPA has appealed to industry to cease production of PCBs immediately, he said. At present the only major of PCBs in the United States is Monsanto, Co., at St. Louis. The agency has estimated that since 1930 some 700 million pounds of the chemicals have been produced in the United States and that at present 300 million pounds are in use. The remainder has been dumped into landfills, leached into waters or is near production sites, lakes and river bottoms, according to the agency.

Although the use of the chemical has been discontinued it was, at one time, used in the manufacture of carbonless carbon paper such as is used in business forms.

PCBs also are present in some paper made in part from recycled business forms that originally contained the PCBs.

Some 19 Wisconsin paper mills that recycle paper are attempting to meet effluent standards set by the DNR limiting the effluent to 10 parts per billion PCBs.

Adamkus said that the breakdown time of PCBs is near that of DDT, and is believed to be about 50 years.

He said that the levels of PCBs at present may be the highest that will occur in the nation and that a very gradual decline is likely to occur as use of the chemicals is halted.

"I believe that at the present time the discoveries are at the highest level."

Dredging of rivers and lakes may aid in eliminating some of the chemicals which have settled to the bottom of waterways and gradually are being released.

A substitute chemical, developed by Dow Chemical Co., appears to be effective and safe in early tests although the EPA has not ruled on its safety, said Adamkus.

"The EPA has not committed itself to approve or disapprove but the first results this is an extremely safe substitute."

Some type of regulation governing PCBs may be forthcoming from the agency within six months, he said.

The U.S. Food and Drug Administration has ruled that materials containing more than 5 parts per million of PCBs are unfit for human consumption on a commercial basis and has restricted commercial fishing both in Lake Michigan and the upper Mississippi River as a result.

The Ontario Ministry of Health has warned against a possible health hazard when eating fish containing more than 2 parts per million of PCBs. Smelt and bass in Lake Ontario's eastern basin range from two to nine parts per million.

The breakdown time of PCBs, like DDT, is believed to be about 50 years

—EPA official

In Lake Michigan lake trout and salmon have been found to exceed, regularly, the minimum levels for PCBs and state and federal officials have warned against eating more than one meal per week of the fish.

The chemicals concentrate in fatty tissues of the body and fish such as lake trout and salmon are especially susceptible to the concentrations.

State officials have banned the sale of lake trout from Lake Michigan because of the PCBs. According to Ron Poff, commercial fishing supervisor of the DNR, a limit in the U.S. similar to that of Canada would end marketing of all but smelt, alewives and perch from Lake Michigan.

Tests at the University of Wisconsin medical school have indicated PCBs can be a serious hazard.

Dr. James Allen, a professor of pathology at the university, said that monkeys fed levels of PCBs from 2.5 to 300 parts per million in all food develop acne, loss of hair, loss of eyelashes, decided edema of the face and develop higher levels of PCBs. When fed from 25 to 300 parts per million for two to three months the monkeys experience morbidity and mortality.

Monkeys fed only food containing 2.5 to 5 parts per million for one or two months did not die but did experience breeding difficulties.

He said it is not impossible that a woman, with a build-up of PCBs high enough, might not be able to conceive or might abort the fetus.

The chemicals do not break down but continue to reach ever higher levels in fatty tissues.

Adamkus said, however, that as PCBs are withdrawn from industrial uses they should gradually dwindle in the environment reducing the danger of increased contamination of waters and the air and to wildlife and humans.

He stressed that a federal Toxic Substances Control Act, proposed before Congress is a necessity if the EPA is to be effective in its cleanup attempts.

"The faster Congress will come out with an act the better." The act would give the agency power to review and limit registration on toxic substances and their use.

"We have too many pesticides around that we don't even know the effects," he said.

At the present time the agency is attempting to completely withdraw from any uses a pesticide called Kepone which has caused severe nervous disorders among workers at manufacturing plants.

"We are doing out best to remove the existing Kepone (and dispose of it by burning this is very controlled conditions."

Manufacture of Kepone has been halted.

Adamkus said the biggest battle in cleaning the environment is centered now in the states around the Great Lakes. It looks like the battle is being won, he said.

"This is the most industrialized, most populated (EPA region) and I would say this region is making the greatest progress in cleaning up."

'If we lose the environmental battle no amount of money is going to clean this up.'

—EPA official

It's hard to separate Wisconsin's problems from the problems of the entire area because environmental difficulties overlap political bound but Wisconsin is "one of the best states in the region," he said.

The state is more fortunate than many because it hasn't developed an air pollution problem as have some others, according to Adamkus.

The problems of air pollution and water pollution are the most serious in the region and in Wisconsin those problems are shared with all border states.

Wisconsin is one of the states where all available grants-in-aid are being utilized. "I would say you are making progress not only here but in all the region."

Adamkus said the Reserve Mining Co., of Silver Bay, Minn., which is presently dumping taconite tailings into Lake Superior will have to either cease such disposal or cease operations within the next 12 months, according to the most recent court decision.

Reserve Mining Co., has battled the EPA in extended court actions over taconite tailing disposal for years.

"They don't have a choice (now) unless this decision would be overturned," said Adamkus.

Adamkus said the pollution by Reserve of Lake Superior is so gross the EPA has not even considered the time it will take for the lake to clean itself but he stressed the importance of halting additional pollution.

"We have to stop additional pollution to Lake Superior." Tons of the tailings, a byproduct from the taconite iron mining industry, are dumped daily into the lake, he said.

Although the cleanup process is succeeding it will take years and be a costly effort, he said.

"The entire pollution process probably took place for the last 50 years. The human nature is to want something within 24 hours. This is impossible."

Adamkus said, however, that in the time spent in trying to clean up the environment some progress has been made.

"The first signs are already emerging." Flies are present where there were none before, and air and water are cleaner than before.

"We have less phosphorus in Lake Michigan."

Adamkus said that although the Lake Michigan phosphorus levels have lessened there is a need for an intensified effort to limit the phosphorus levels to the lake.

The cost of the environmental cleanup is one that is less than ignoring the problem, he said.

"It would cost more if we wouldn't do it — what we are trying to accomplish."

And Adamkus denied that the EPA and federal restrictions on industry, have resulted in losses of jobs.

"The environmental industry actually (has) created a new industry that produced more jobs than we displaced."

Years ago the environmental battle was more one of immediate eagerness and an active awareness of a need for clean waters and air. Now a more sustained and serious effort is going on and Adamkus said that it will continue.

"Even if we don't catch the front pages of the newspapers I think we have the momentum and this is going to carry on." People will support the cleanup efforts and will pay for the cost especially as they enjoy cleaner waters, he said.

Saving by permitting pollution is not economy but folly, he said. "If we lose the environmental battle no amount of money is going to clean this up."

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