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PCB - RAY

Chemicals above acceptable amounts

By JUDY JOHNSON
Star Staff Writer

Food and Drug Administration analyses in May and June showed catfish from Choccolocco Creek with more than 50 times the acceptable level of a chemical substance and carp from Logan Martin Lake with almost eight times the acceptable amount of the same material.

Tests for chlorinated hydrocarbons polychlorinated biphenyls (PCBs) were run on a small quantity of fish, some of which were collected from commercial fishermen on Logan Martin Lake and at the mouth of Choccolocco Creek. Chlorinated hydrocarbons include DDT and its breakdown products Dieldrin, another controversial pesticide, also was tested for.

THE FEDERAL Water Quality Administration and the FDA have set 5 parts per million as the acceptable tolerance level for other chlorinated hydrocarbons or PCBs in the flesh of fish.

Catfish samples from Choccolocco tested as high as 277 parts per million of PCBs, according to A. W. Grasselo of the Atlanta FDA laboratory. He said a carp sample from Logan Martin showed 39.6 parts per million.

The survey was run in preparation for a future closer FDA look at levels of various impurities in the flesh of fish in Alabama streams.

The question of whether PCBs are dangerous to human health is still in dispute.

PCBs ARE manufactured in the United States only at the Monsanto plant in Anniston and another in Illinois.

Gene L. Jessee, local Monsanto plant manager, said: "It's the main product." It is produced year-round, while some better-known products like parathion are not.

The fluid is chemically inert, inflammable and has excellent electrical properties. It has been manufactured for 35 years as a safety fluid for electrical equipment.

Grasselo said there is no doubt the level of PCBs in the samples exceed the administrative guidelines set by the FDA as to tolerance levels. And, he said, there are cases of pesticide residues which also exceed these levels.

JOE CROCKETT of the Alabama Water Improvement Board said no action is planned at present as a result of the findings. "I can't say that they would necessarily require action," Crockett said. "The value of PCB is something that in my opinion has yet to be decided..."

The whole matter of PCBs is still subject to study and investigation, Crockett said.

The manufacturing source of PCBs is the Monsanto plant at Anniston. Any other sources would be minor and accidental. PCBs are used in a closed electrical systems such as transformers.

ACCORDING to Jessee, several steps have already been taken to halt any flow of PCBs in the effluent from the plant, and research is underway to determine the best methods of monitoring PCBs and halting the flow permanently.

"We've just scratched the surface on know-how about the product," Jessee said "...we wanted to develop qualitative and quantitative expertise. It has been a slow process because of the ability to identify the materials and the lack of sophisticated analysis equipment..."

In the past several months, Jessee said, Monsanto has developed the methodology, trained the people and obtained the equipment needed to start some analysis work "to monito ourselves." There are no seven technical people workin full-time on the problem, h said.

"...we have done thos things we found importan first," Jessee said. "We must sure no major quantities o PCBs leave the plant. We have spent $300,000 in the last s months to do this..."

JESSEE emphasizes tha Monsanto's work of defining th problem and coming up wit the methods of tackling it i "in its infancy."

The plant manager sai Monsanto is aware of the recen FDA test results, although h

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Tests show chemical substance above state acceptable amounts

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is not certain of their significance. Monsanto's own lab, he said, is having problems getting consistent results in the measurement of PCB levels. "I don't know whether these (FDA) results are repetitive results," he said.

In any case, he said, "I don't see cause for worry from the public health standpoint. I do see that as a responsible company we have an obligation to minimize the possibility of gross quantities of the materials leaving the plant. We're dealing with PCB trying to define and work out what kinds of equipment it takes to reduce that to no measurable amounts."

ALTHOUGH the equipment devised is designed to keep any gross amounts of material from leaving the plant by accident, large spills of the material have apparently never occurred. PCBs that get into Choccolocco Creek don't get there as a direct result of the PCB manufacturing process. The PCB manufacturing process is an anhydrous (carried on without the presence of water) process.

So how do PCBs get into Monsanto's effluent? "Through things like washing the floor down," Jessee explains. "The vacuum system uses steam and that could get some in it. . .it's very incidental to the process to have any water involved."

The effluent carrying the escaped PCBs doesn't go with some of Monsanto's other effluent through the City of Anniston's sewage system. Instead, if flows directly into Snow Creek, and from there into Choccolocco Creek.

SO FAR, Monsanto's attempts to halt any flow of PCBs into the creek have taken several forms: "The first thing we did was to install a big catch basin, which prevents major surges of material from leaving," Jessee said.

PCBs are heavier than water, so most such material will sink to the bottom of the catch basin, where it is picked up and recycled into the manufacturing process again. Some of the PCBs remain on the surface of the water, held there by surface tension. These are skimmed off the surface.

"Then we went in the front yard of the plant and put in what we thought was a crude approach, but later found is the best thing around — a massive filter of limestone rock and some graded coke and some concrete dams built at intervals through the thing, which causes all the effluent from the plant to go through this thing. The PCBs adhere to the surface of the limestone and sand and other materials.

PCB problem unfolded as environment hazard

PCBs first came to public attention in a brief flurry of excitement this summer when Rep. William F. Ryan, D-N.Y., held a press conference to point out the possible problem of PCBs in the environment.

Although the material has been manufactured for years, it was not until recently — in the last 18 months — that it was recognized as a potential environmental hazard.

The problem: like DDT, PCBs do not break down. And also like DDT, they build up in the food chain, with animals at the top of a food chain carrying the highest concentration of the material in their flesh — a much highr concentration than is measurable in the environment.

BUT WHAT is the effect of PCBs? "More study needs to be developed," said Joe Crockett of the Alabama Water Improvement Board. "Nobody knows. There has been no evidence — it's like DDT — people have eaten the stuff and still do all right as opposed to organic phosphate compounds which are more toxic. . .I can't get alarmed about the PCB question. It's just something you have to recognize and get in behind it and control it. There's not enough evidence to be alarmed. . ."

"People are trying to find out what effect PCBs have on living organisms," said an official at Monsanto. "We can't find any documented evidence at this point. People are looking at it, but they can't find any documented results of effects from environmental contact."

But Ryan, in his press conference this summer, was quoted in the St. Louis Globe-Democrat as claiming that the substance is said to be threatening the reproduction of birds, and is also suspected of being harmful to humans and animals.

RYAN claimed in that press conference that PCB, inhaled, can cause nausea, rapid breathing, loss of weight and a lowered red blood cell count. More serious results are the deterioration of the kidneys, jaundice and atrophy of the liver, he claimed.

According to Crockett, PCBs weren't identified in the natural environment until three or four years ago. Then, they showed up in gas chromatograph analyses as an unidentified blip.

"Monsanto was the one that told us about the PCBs," Crockett said. "They had been very concerned about it. They're trying to control any loss of PCBs at their Anniston works. We are satisfied they are doing a very effective job. I think you could compare it to the response we have had on the containing of mercury, which in my opinion has been excellent."

MONSANTO has installed a laboratory, which Jessee describes as being "as clean as a hospital scrubroom" with necessary equipment to measure PCBs in part per billion, if necessary. The techniques for the measurements are not yet perfect, though, Jessee said.

Monsanto is still casting around for a final approach to the poblem. Four large cylinders of activated charcoal now stand next to the catch basin, filtering some of the waters leaving the basin as "clear" water. PCBs are being removed from that water. According to Joe Landwehr, an engineer at Monsanto, the results of that experiment are excellent, and the activated charcoal may prove to be the answer to the problem. But there are problems still to be worked out before it is chosen as the answer.

State conflict-of-interest laws

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the control of the treasurer, that is, money which has not

indirect interest.

Mrs. Allen says she plans to continue her battle in the next

lost."

The loss of interest which could easily be gained, she says.

Boycott

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ment by the North Vietnamese foreign ministry was distributed