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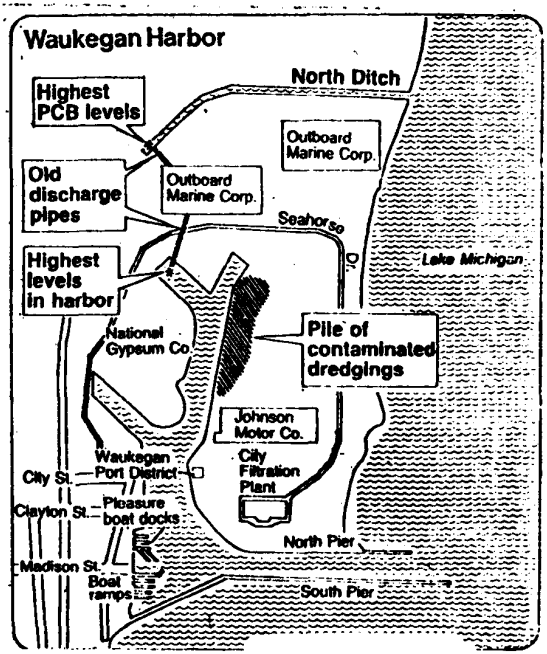
Tribune Photo by Karen Lee

Dick Robbins (left) and Brad Marion of the Lake Michigan Federation at the north drainage ditch in Waukegan Harbor with the Outboard Marine Corp. plant in background. They claim PCBs were released by the firm from this pipe.



PCBs roil Waukegan Harbor

By John McCarron

EVEN THOUGH the harbor ranks among the most severe water pollution cases in the nation, any cleanup of Waukegan Harbor probably will be delayed for several years in a tangle of lawsuits and conflicting engineering reports.

Two years have passed since high concentrations of the toxic chemical PCB [polychlorinated biphenyls] were found in the muck at the bottom of the harbor. The PCBs will remain there, say those familiar with the case, for several more years until federal judges and marine engineers answer three questions:

- Who is responsible for the cleanup?
- Can the contaminated sediment be removed without further damage to Lake Michigan?
- How much would removal—an engineering project unprecedented in scope—cost, and who would pay?

ANSWERS TO THESE questions are expected to come out of three lawsuits filed earlier this year in Federal District Court.

Outboard Marine Corp., the firm which admits discharging the PCBs over an 18-year period ending in 1971, sued first. The suit asks that the U.S. Environmental Protection Agency be ordered to study the extent of contamination and what, if anything, can be done about it.

EPA responded with a lawsuit demanding that Outboard Marine perform this expensive research and, if necessary, remove and dispose of the contaminated sediments.

A SIMILAR SUIT against Outboard Marine was filed two weeks ago by the Illinois attorney general's office.

The suits are being watched closely by environmentalists across the nation because they may settle once and for all who is responsible for repairing environmental damage, the polluter or the government.

But the history of the Waukegan case shows that blame and responsibility are not always clear-cut.

IT ALL BEGAN in 1946 when Outboard Marine began buying a hydraulic fluid called "Hydrasil" from Monsanto Chemical Co. of St. Louis.

According to Outboard Marine's senior counsel, Hugh R. Thomas, Monsanto never told his firm that PCBs were a major ingredient of Hydrasil. For that matter, the toxic effects of PCBs were not generally known until the late 1960s.

Over the next 20 years, Outboard Marine bought 8 million pounds of the chemical, Thomas said. It was used in the hydraulic systems of high pressure die-cast machines, and it leaked steadily from those machines into a floor drain system. That system emptied at two places—the north end of the harbor, and into a drainage ditch north of the factory which empties into Lake Michigan.

Monsanto switched Outboard Marine to a non-PCB fluid in 1971, Thomas said. Growing concern over the harmful effects of PCBs caused the chemical firm to cease production of it entirely in 1977.

"We had no knowledge we were even using PCBs until February 1976, when the Illinois EPA came to us and said their tests showed high levels in the harbor," Thomas said. "Our first response was that it couldn't be us because we don't use it."

What PCB is, what it does

PCB's, or polychlorinated biphenyls, are chemical compounds used primarily as coolant fluid in electrical capacitors and transformers. Prior to 1971, however, they were used in adhesives, plastics, varnishes, carbonless carbon paper, and, as at Outboard Marine Corp., hydraulic fluid.

Studies have shown that PCBs are highly toxic to animals and man. They gained worldwide attention in 1968 when five people died and 1,000 others were stricken in Japan after eating cooking oil contaminated with PCBs.

More recently, fish in the Great Lakes have been found to contain unusually high levels. The Food and Drug Administration recommends that only eight ounces of Lake Michigan salmon be eaten in any one-week period because of this contamination.

PCBs TEND TO concentrate in higher and higher levels as they move through the food chain from micro-organisms to bait fish to game fish.

Symptoms of PCB poisoning in humans include acne-like eruptions of the skin, nausea, abdominal pain, swelling, jaundice, and fatigue.

Although PCBs have been found to cause reproductive failure in animals, it is not yet known whether the chemical can cause human infertility.

THE SAMPLING TAKEN by the IEPA at the far north end of the harbor showed PCB levels as high as 4,300 parts per million. Levels over 10 parts per million are considered unsafe.

But the worst reading was near a discharge pipe at the west end of the North Ditch—346,000 parts per million, almost one-quarter of the mud there, was made of PCB.

Further tests of Outboard Marine's discharge pipes uncovered PCB residues, and later in 1976 the company agreed to cap the pipes, and to monitor future discharges to ensure they do not exceed 10 PCB parts per million.

Thomas said manufacturing operations were halted for more than a week while a new drain system was installed at a cost of $200,000.

But the damage had been done, and cooperation between the company and the agencies quickly disintegrated once the discussion turned to who was going to clean up.

AFTER SOME haggling, Outboard Marine agreed to pay for a $300,000 study of the extent of PCB contamination and its threat to the environment. Thomas said a private consulting firm spent a year on the project and early this year reported that the PCBs in the harbor were essentially "locked in" to the sediment and therefore were "largely out of the environment."

Such a conclusion leads weight to a do-nothing course of action rather than to risk dredging the harbor and remixing the sediment with lake water, a process called resuspension.

"Aren't the PCB's better off locked into the sediment?" Thomas asked.

But EPA officials said a final version of the Outboard Marine study was not available to them.

"They have not shown us a study on which any action could be based," said Kaye Jacobs, the EPA attorney handling the case.

BY EARLY SPRING of this year, it was a standoff, with both sides wanting the other to pay for any additional studies. The lawsuits followed.

Jacobs said the EPA has contracted with another engineering firm to study the PCB problem, but she would not disclose any results of that study, claiming such information is part of the pending lawsuits. She would not say whether this latest study supports the agency's demands, as stated in the lawsuit, that Outboard Marine dredge the North Ditch and study the feasibility of dredging the harbor.

Everyone connected with the dispute agrees that dredging the harbor would be a herculean task.

UNLESS A SPECIAL dredge can be developed to prevent remixing of the sediments, the entire harbor might have to be dammed shut to keep the roiled water from reaching the lake. Water in the harbor averages about 12 feet in depth and the PCBs are found up to 6 feet below the floor of the harbor, samplings have shown. The operation could take months, maybe years, say the experts.

All this comes at a time when Waukegan officials are trying to revitalize the harbor and promote the town as the "Freshwater Salmon Capital of the World." A planned expansion of the harbor may have to wait until the dredging issue is settled, one city official said.

Then there is the knotty question of what to do with the contaminated soil. No Illinois landfills are licensed to accept such a quantity of contaminated fill. Outboard Marine's Thomas said only two facilities, one in Georgia and another in Arizona, could accept such a load. He said the transportation costs alone would be staggering.

Thomas said one unofficial cost estimate of dredging and removal was about $5 million. That would be about one-quarter of Outboard Marine's 1977 profits.

DICK ROBBINS, director of the Lake Michigan Federation, argues that Outboard Marine should pay whatever is needed to rid the harbor of PCBs.

"They should have a crash program to clean it up rather than spending money on lawyers to defend themselves," said Robbins. He said the company "is banking on this thing taking years in court so their money is in the bank earning interest and not going for cleanup."

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