great lakes
communicator

Published by the Great Lakes Basin Commission, a regional planning agency
Volume 11, Number 3/December 1980

PCBs: You Can Store Them Up, But Can You Throw Them Out?

Hundreds of thousands of gallons of PCB-contaminated wastes are being stored in barrels throughout the Great Lakes region. There is no legal way to destroy or discard many of them.

Once used as insulating materials by industry and in consumer goods, these PCBs now sit in temporary facilities, built to government standards, for which industry has spent millions of dollars.

William Gunter, head of the U.S. Environmental Protection Agency's PCB regulations staff in Washington, says some 20 million pounds of PCB wastes are being stored nationwide, mostly by utilities. A report for the Electric Power Research Institute says that EPA's Region V, which includes six of the eight Great Lakes states, will have the greatest demand for utility PCB disposal capacity of all 10 EPA regions.

The technology exists to destroy the PCBs through incineration (see insert), but public opposition and other factors have so far prevented any incinerators from being approved for commercial use in the U.S. Incineration is the only method approved by EPA for destroying high-level PCBs (those with more than 500 parts per million, a cut-off point established by EPA).

Lower-level PCBs can be discarded in approved chemical waste landfills, but only eight such landfills exist nationwide, and the cost of shipping PCBs to them is high.

Meanwhile, PCBs continue to enter the environment, even though U.S. production of them stopped three years ago. In fact, small quantities of PCBs have contaminated most of the Great Lakes. They have accumulated in large amounts in Waukegan Harbor, Ill.; the Saginaw River in Michigan; Sheboygan Harbor, Wis.; and other places around the Great Lakes.

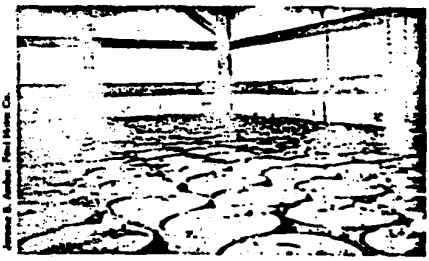
PCBs also fall into the Great Lakes from the air. The burning of sewage sludge releases them, since the burning temperatures are too low to destroy them. PCBs also evaporate from paints, landfills, and other sources. One study estimated that 11,000 pounds of PCBs enter Lake Michigan each year with rain and snow.

Fishermen have also been affected by PCBs. State agencies have warned consumers to restrict consumption of some kinds of fish (see insert, *A Fish Eater's Guide to PCBs*). Some commercial fishermen have changed to catching less-contaminated fish. EPA is sponsoring a Michigan study of PCB levels in consumers of large quantities of Great Lakes fish. As scientists at the Great Lakes Basin Commission and elsewhere predicted, however, controls on usage have caused PCB levels in the lakes and fish to fall. There is hope for an easing of fish advisories in the future.

Companies storing PCBs are hoping a solution will be found to ease them of the burden. Incinerators in Texas and Arkansas (see map) are expected to receive approval from EPA in the next few months, but they are a long

Turn to Page 4

Top: Drums in a PCB storage facility built by Ford Motor Company at its Rouge plant in Dearborn, Mich. The facility was built to federal standards, and Ford hopes to dispose of the PCBs. Below: warning label for marking PCBs.



Courtesy Ford Motor Co.

CAUTION
CONTAINS
PCBs
(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761 For Disposal Information contact the nearest U.S. E.P.A. Office.

In case of accident or spill, call toll free the U.S. Coast Guard National Response Center. 800-424-8802

Also Contact _____

Tel. No. _____

MONS 011493

Courtesy Electric Power Research Institute

The Law and PCBs

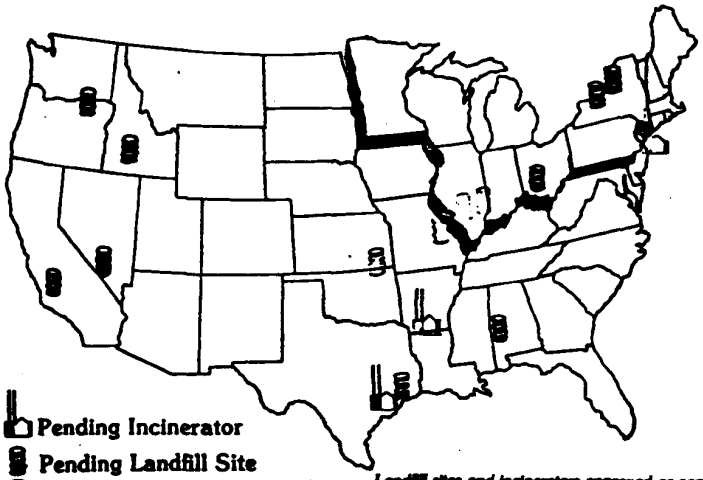
Most of the major federal regulations concerning PCBs were authorized under the Toxic Substances Control Act. But as of last month, the U.S. Environmental Protection Agency has incorporated PCB control into its regulations under the Resource Conservation and Recovery Act.

Both laws were enacted in 1976. PCB regulations under the toxic substances act did not take hold until 1979. Hazardous waste regulations under the resource conservation act were not, in large part, put into effect until 1980. Meanwhile, states such as Wisconsin, Minnesota, and Michigan began regulating PCBs by themselves.

The toxic substances act banned manufacturing of PCBs by Jan. 1, 1979. It required a ban on distribution in commerce by July 1, 1979.

Certain uses may be continued, however. PCBs in closed systems like transformers and capacitors (in which PCBs are not directly exposed to the environment) are still allowed to be used, but will gradually be taken out of service as they wear out. PCBs not in totally enclosed uses may continue until July 1, 1984, if the user receives an exemption from the EPA.

PCBs now being stored must be disposed of by 1984 in facilities that meet EPA requirements. PCBs stored after 1983 must be discarded within one year after storage begins. Until disposal facilities are available, industries must store PCBs in secure facilities whose locations, roofs, walls, floors, and openings meet EPA requirements. They must also keep careful records of the PCBs. □



Landfill sites and incinerators approved or pending approval from U.S. EPA for disposing of PCB wastes.

Map by Connie Gill. Source: Electric Power Research Institute and EPA

MONS 011494

You Can Store PCBs, But...

From page 1

distance from the Great Lakes region's industries and are too few to handle the nation's PCBs. The Great Lakes Basin Commission has initiated a series of roundtable discussions to stimulate discussion on a regional disposal solution (see *From the Chairman*, p. 7). One hope lies in emerging technologies that do not require large, permanent incineration facilities. But such technologies, including one highly-publicized process developed by Goodyear Tire and Rubber Company, may not be suitable for all PCB-contaminated materials (see special insert inside).

Although some chemical landfills accept low-level PCBs (those with fewer than 500 ppm), landfills are only a partial solution. And temporary storage risks accidents, fires, or spills, although federal storage rules are stringent. The Great Lakes Water Quality Board of the International Joint Commission says temporary storage of toxic substances "may be a serious threat to the health and safety of a community."

"We ought to get rid of the PCBs through destruction instead of sitting on them," says Malcolm Day, environmental advisor to Consumers Power Co. in Jackson, Mich. He and other industrial spokespersons say it will take a large effort to convince people that destruction methods are adequate to protect the environment.

David Staats □