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McGraw-Edison Moves To Phase Out Use Of PCBs

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A Greenwood manufacturing plant that uses highly toxic polychlorinated biphenyls (PCBs) is moving to drop the use of the chemical.

McGraw-Edison has used thousands of gallons of PCBs each year in the manufacture of electrical capacitors, according to Bob Keith, manager of the Greenwood plant of McGraw-Edison.

By the end of the present year the local plant plans to cut its use of PCBs by more than 75 per cent and plans to drop use of the chemical completely by the end of 1977.

Keith says PCBs have been used as an insulating material in electrical capacitors since the 1940s. The chemical has good dielectric properties that make it especially

well suited for this use.

In recent years research has shed new light on the undesirable effects of PCBs on the environment. Recently the federal Environmental Protection Agency warned that fish caught in Lake Hartwell might contain a level of PCBs higher than is safe for human consumption.

Once introduced into an environment, PCBs last a long, long time. The chemical tends to accumulate in the tissues of animals such as fish, Keith says.

Since the Greenwood McGraw-Edison plant began operations, it has produced thousands of capacitors and each capacitor contains two or more gallons of PCBs. And Keith admits there is some spillage.

The chemical, produced by Monsanto, is colorless and Keith says it looks about like water. The

PCBs come into Greenwood in railroad tanker cars and the chemical is transferred to trucks for a short haul to the plant. The people in the plant rarely see the chemical, Keith adds.

If for no other reason than simple economics, the company tries to eliminate spillage of PCBs. The chemical cost about \$6 per gallon. Cleaning up and doing away with spillage is also expensive.

When the chemical is spilled, such spillage must be carefully cleaned up and stored for destruction. In order to destroy it, it must be shipped to St. Louis, Mo. for incineration. PCBs are hard to destroy, Keith says.

Due to the dangers of PCBs, Keith says Monsanto has indicated it would like to stop manufacture of the chemical and McGraw-Edison is working to stop using it. About three years ago Dow

Chemical Co. in conjunction with McGraw-Edison began a concentrated search for a substitute for PCBs.

During a period of trial and error experimenting, many chemical combinations were tried and many were discarded, Keith says.

Finally a usable combination was found in a dielectric fluid given the name Edisol. McGraw-Edison began using Edisol on a limited basis last year and, according to Keith, the firm has committed itself to a full-scale move to the product.

Already the company has sold and shipped hundreds of the Edisol-filled capacitors. Right now new equipment for handling Edisol in the manufacturing process is being installed at the local plant.

The firm plans to cease use of

PCBs in its capacitors completely in mid-to-late 1977 and the switch may be finished even earlier, Keith says.

The pressure's on, he adds. A proposed toxic substance act now being considered by the U.S. Congress will probably impose severe restrictions on the use of PCBs and eliminate the use of the chemical entirely within a year or two, Keith predicts.

Keith says McGraw-Edison has a substantial jump on other capacitor manufacturers by making an early switch away from PCBs.

"Edisol is more expensive and the company is sticking its neck out," Keith says. "If other firms continue to manufacture and market capacitors using PCBs our higher priced units will obviously be at a disadvantage in the marketplace."

The use of Edisol will jump the

price of a McGraw-Edison capacitor about 25 per cent above those containing PCBs, he estimates. He says capacitors such as those produced by McGraw sell for several hundred dollars.

"Capacitors containing Edisol have proved more reliable in service and we hope our customers will consider this and also consider problems they may have in the future if the government requires them to dispose of units that contain PCBs," Keith says. "Disposing of such units would not be cheap or easy to do."

Meanwhile the PCB problem remains with us and apparently Keith doesn't think it's being overplayed.

"Government agencies have concluded that a danger exists," he says. "I don't think I would want to eat a fish from a lake where the EPA said the level of PCBs was beyond the safe point."