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PCBs:

A success story and a challenge

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For two Massachusetts manufacturers, the often bitter saga of polychlorinated biphenyls (PCBs), a cancer-causing chemical used for 40 years in the manufacture of electrical equipment, could have a happy ending.

Two others, however, said yesterday that a US Environmental Protection Agency (EPA) ruling that no PCBs may be discharged directly into rivers and harbors after next January presents a technological challenge which they are not sure they can meet.

The EPA announced the ban Wednesday, ending a battle the Federal agency has been waging for three years.

Scientists have found the chemical causes cancer in laboratory animals, and factory workers in contact with PCB developed disorders ranging from itchy skin to asthmatic bronchitis.

Additionally, the compound has been found to accumulate in wildlife, notably fish downstream from plants where it was used.

As a result, commercial fishing has been banned in the Hudson River below a General Electric Co. plant at Hudson Falls, N.Y., which used PCBs. Sportsmen are advised not to eat fish caught in the Housatonic River below the General Electric plant in Pittsfield. And last fall, shellfishing was banned in New Bedford harbor and the Acushnet River, near two PCB users' plants.

While not denying the health effects cited by the EPA, companies using PCBs have argued the compound had no suitable substitute in their products.

PCBs are a series of chemically stable, nonflammable liquid compounds which make excellent insulators in electrical capacitors and transformers. These products include small capacitors used as the "ballast" in fluorescent light fixtures, and large drum-shaped units installed in electric company substations to regulate the flow of electricity.

Yesterday, spokesmen for two Massachusetts manufacturers said they have found substitutes, developed during the past year after the Monsanto Corp. of St. Louis, the sole US maker of PCBs, announced at midyear it would halt its manufacture of the substance next fall.

At General Electric in Pittsfield, which employs 9000 persons, a silicone compound will replace PCBs in transformer manufacture starting March 1.

At Sprague Electric Co. in North Adams, where about 10 percent of a total of 1600 employees now are in contact with PCBs in making capacitors, the compound will be phased out and an unidentified substitute product phased in by July 1, according to Fred Windover, assistant general counsel.

Sprague Electric said last year it would have to shut down its operations involving PCBs completely were the product banned.

The problem of replacing PCBs is not so simple for the two New Bedford users, said officers of those firms.

Clifford Tuttle, president of Aerovox Corp., which employs 500 persons, said a joint research effort by his firm and others has yet to develop a suitable substitute for the capacitors they make.

Before Monsanto stops PCB production, he said, "we can stockpile enough to carry us through the summer of 1978," but if a replacement is not developed by then, a plant shutdown is possible.

Curtis Lopes, manager of plant engineering at Cornell-Dublier Corp. of New Bedford, which employs 700, said his firm similarly has not figured out how to replace PCBs in its capacitor manufacturer. "There will be a change, there's got to be a change, but we don't know what yet," he said.

Tuttle said the EPA ruling will be appealed in court by the Electronic Industries Assn., for which he chairs an ad hoc committee on PCBs.

The group believes the regulation announced by former EPA Administrator Russell E. Train conflicts with the toxic substances law passed last year in Congress and that it fails to recognize that some PCB compounds are less toxic than others.

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