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PCB phase-out plan

Monsanto will stop making and marketing polychlorinated biphenyls (PCBs) for the electrical power supply industry no later than Oct. 31, 1977, the company said last week. Monsanto, principal supplier of the dielectric insulating fluid, had earlier projected shutdown for year-end 1977. The move comes shortly after numerous investigations by the Environmental Protection Agency and other agencies found more widespread traces of PCB contamination in the U.S.

PCB contamination in the Hudson River is being tackled under a $7-million program by New York State's Environmental Conservation Dept. and General Electric. Agreement on the program settled legal proceedings brought against GE in 1975 because of PCB discharges at its Hudson Falls and Fort Edward, N.Y., capacitor plants (*CW, Sept. 15, p. 14*).

Shutdown: Earle H. Harbison, Jr., general manager of Monsanto's specialty chemicals division, said the company will close its Sauget, Ill., PCB manufacturing unit and complete distribution of all such inventories by Oct. 31, 1977. It would have targeted shutdown even earlier, he added, if transformer and capacitor makers could have converted to use of non-PCB materials sooner. Estimated 1976 PCB production is 24 million lbs., well below previous annual averages of about 40 million lbs.

The National Electrical Manufacturers Assn. states that most transformer manufacturers could be prepared for conversion anytime after Jan. 1, 1977, because the impact on their segment was relatively slight. Only 5% of total transformers are filled with PCB-containing askarel liquids, and quick switchover is possible to either silicone-filled equipment or other types of transformers. Dow Corning estimates it would take 8 million lbs. of silicone transformer liquid to replace volumes of askarel now used in transformers.

But conversion poses several major problems for makers of both power and specialty capacitors, the industry group says. The largest problem: finding, testing, and gaining government acceptance for use of any substitute with fire-resistant properties that will meet fire and building code standards.

Search for Substitutes: Monsanto notes the trend in the capacitor market is toward using commodity chemicals, such as phthalate esters. As a result, the company adds, Monsanto has halted development work in the capacitor-replacement-dielectric field.

McGraw-Edison, an electrical equipment supplier, says it is now furnishing (where specified) power capacitors filled with Dow Chemical's Edisol alkylated chlorodiphenyl oxide base. McGraw-Edison adds that about two-thirds of the orders it now gets call for non-PCB-filled capacitors. The company plans to halt all use of PCBs by Nov. 1.

General Electric says it has whittled down its list of possible substitutes from 100 to 25, but won't discuss the liquids under consideration, noting only that its transformers will use silicones. GE will halt PCB use in capacitors by July 1, 1977, and in transformers by June 30, 1977.

Westinghouse states it has made and shipped several hundred capacitor units containing Sun Co.'s (formerly Sun Oil) experimental S-17 isopropyl biphenyl, a synthetic aromatic hydrocarbon, for customer evaluation. Test results are expected within the next six months.

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