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Use of askarel to stop when substitute gains acceptance

Production of polychlorinated biphenyl (PCB) dielectric insulating fluids will be terminated by the Monsanto Co. as soon as acceptable alternate dielectric fluids have been accepted for use by the electrical industry, according to a recent announcement by F. J. Fitzgerald, managing director of Monsanto Industrial Chemical Co.

The PCB insulating fluid, commonly called askarel, has been employed in transformers, capacitors, and other closed electrical systems for indoor use because of its unique fire-resistant and dielectric characteristics. However, in recent years the Environmental Protection Agency, other governmental departments, and independent researchers have concluded that the PCB material when released into the environment is a toxic contaminant that does not degrade. Instead, it builds up in the biological food chain to cause illness and death to birds, mammals and man.

In response to this problem, Monsanto has established disposal procedures for PCB fluid, and the firm has developed a special high-temperature incinerator that completely destroys the fluid by burning it at over 2000°F. This service and other technical assistance is available to their customers on a continuing basis.

Additionally, the firm has been working for a number of years on a replacement fluid that is nontoxic, with a view toward replacing the PCB material with a suitable substitute product without creating another hazard and without causing a reduction in electric power capabilities.

Other industrial firms working on a suitable dielectric fluid replacement include Dow Corning, which has several years of practical experience with a silicone fluid for transformers that they believe is a functionally adequate alternative to askarel.

Along with other major chemical

producers, Dow Corning does not believe that the electrical industry can possibly make a change to an ecologically safe dielectric liquid overnight and proposes that the replacement procedure should be established in a series of logical steps.

The first step would be a large-scale field qualification program, with transformers installed in many different geographical locations under many kinds of use and with differing environmental conditions. Such a wide-range testing program would provide the statistical data needed to assure the industry and government that no new risks are being incurred. The collective experience of many users would also provide a data bank for future transformer designs.

The EPA, which made an abortive attempt to set tight PCB pollution rules in 1973, has stated that total elimination of PCBs would not be sought without considering the interests of consumers, industry business patterns, and related international competition. The near-term objective is to end production and importation of PCBs and products containing PCBs, and the immediate goal is to prevent the greatest number of PCB discharges into the environment.

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