

PCB ALTERNATIVE: DOW XFS-4169L CAPACITOR FLUID

Since the later 1960's, polychlorinated biphenyls (PCB's) were identified as hazardous to man and his environment. In 1972, there were no acceptable alternatives to PCB's in power capacitors. Today Dow XFS-4169L Capacitor Fluid developed by The Dow Chemical Company is proving to be an acceptable alternative.

Chemically, the new Dow fluid can be described as alkylated chlorodiphenyl oxide. Electrically, the Dow fluid performs as well or better than PCB's. Capacitors impregnated with the new Dow fluid show superior corona behavior and better handling of stress resulting in lower operating costs.

At the same time, the health and environmental characteristics of the Dow fluid have been found to be significantly superior to PCB's. This was accomplished by first screening and evaluating a large variety of chemicals and then selecting that product with the superior health and environmental characteristics. Dow XFS-4169L Capacitor Fluid was found to be highly biodegradable compared with PCB's. It also was found to be less toxic to fish and animals, and less bioaccumulative in fish and animals.

A major manufacturer of power capacitors in the U.S. has found the Dow fluid to be an acceptable alternative to PCB's. The manufacturer plans to complete test marketing the new product in its capacitors by late 1975.

Although the cost of the Dow Capacitor Fluid will be higher than that of PCB's, the overall costs to capacitor manufacturers, as well as electrical consumers, are expected to be lower. This is because the toxicity of PCB's is such that costs for handling, operating and disposal are far more expensive.