ROUGH DRAFT

Mr. Eugene N. Cramer
Engineer for Advanced Energy Systems
Southern California Edison Company
P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, California 91770

Dear Mr. Cramer:

You asked me to help define the definition of Aroclors 1254, 1242 and 1016 in relation to Initiative Measure to be Submitted Directly to the Electors, Health and Safety Code. Paragraph 14077 defines "persistent chlorinated hydrocarbon". This list does not include polychlorinated biphenyl. Aroclor 1254, Aroclor 1242 and Aroclor 1016 (MCS 1016) are polychlorinated biphenyls. They have a different chemical structure from the compounds listed in 14077.

The chlorinated biphenyls are chlorinated hydrocarbons. They are made up of chlorine, carbon and hydrogen. They could be listed if the authors of the bill had chosen to do so.

Monsanto is supplying Aroclor 1016 to capacitor manufacturers to maximize the rate of biodegradation by microorganisms while maintaining the desirable electrical and fire retardant propertoes of Aroclor 1242. Aroclor 1254 is used principally in transformers where there is a need for still more fire resistance and to minimize the explosive nature of arc formed gases.

References to biodegradation of PCB's are reported in:

Grant, D. L., W. E. J. Phillips & D. C. Villeneuve. 1971. Metabolism of a polychlorinated biphenyl (Aroclor 1254) mixture in the rat. Bull. Environ. Contam. & Toxicol. 6(2):102-112.

Curley, A., V. W. Burse, M. E. Grim, R. W. Jennings & R. E. Linder. 1971. Polychlorinated biphenyls: distribution and storage in body fluids and tissues of Sherman rats. Unpublished MS., Environmental Protection Agency.

Koeman, J. H., M. C. ten Noever de Brauw & R. H. de vos. 1969. Chlorinated biphenyls in fish, mussels and birds from the River Rhine and the Netherlands coastal area. Nature, 221:1126-1128.

We expect to publish a note on the biodegradation of Aroclors in the first quarter of 1972 reporting some of our own work.

Very truly yours,

William R. Richard
Manager, R&D
Specialty Products

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