Electrical Times - August 13, 1971

Pyroclor and the environment

THE FIRE resistant transformer cooling and insulating fluid Pyroclor which is made by Monsanto Chemicals has established a small, but growing role in the UK. Sales have more than doubled since 1965 and are expected to double again in the next five years.

At present only about 5% of distribution transformers, mainly for industrial supplies, use this fluid but in Europe the proportion is estimated at 15%.

Recently there has been concern expressed about the effect on animal life. Pyroclor is blended from a class of chemical compounds termed polychlorinated biphenyls (p.c.b.s.) and in March this year Monsanto voluntarily stopped selling its p.c.g. products for applications where they might escape into the environment.

However, the company maintains that since in transformers the product is sealed in a steel tank, leakage to the environment is a negligible risk. It has, however, taken steps to ensure that users are aware that precautions must be taken in using and disposing of the fluid.

The p.c.b.s. are very stable chemical compounds and given the right conditions they could accumulate in the environment. They are not believed to be highly toxic; much less so than d.d.t. for example.

Users of Pyroclor have always been advised that, for example, protective clothing is necessary in handling the fluid. The fluid is intended to last the life of the transformer and so handling or disposal of the fluid should only be necessary if it becomes contaminated or if the transformer has to be disposed of. A fluid reclamation service is available to remove contaminants. This service is provided by Dalton and Co of Belper. Very shortly a facility for disposing of waste Pyroclor will be made available by Purle Bros of Rainham.

The company will operate a collection and incineration service. To destroy Pyroclor incineration at a very high temperature is essential. Cost to the user is likely to be about 1p/lb of Pyroclor.

To identify transformers containing Pyroclor, Monsanto is issuing free to manufacturers a metal label 6 in. by 3½ in. with the words "Important. This transformer is filled with fire resistant Pyroclor" engraved on it.

Transformers using this liquid are particularly used in packaged substations for industrial plants.

MONS 032296