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EVALUATION OF THE MORGENTHAU
H.D.P.E. FILMER

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SUMMARY

The Monsanto high density polyethylene (H.D.P.E.) filter has been evaluated. This filter is formed by forcing H.D.P.E. foam through a heated dye to produce a filter rod. This filter has a significantly lower weight than the cellulose acetate filters in current use. It also has a higher filtration efficiency for T.P.M. and nicotine but a lower efficiency for phenol than does an acetate filter. It has no effect on the major vapour phase components. There is a slight reduction in the nitromethane fraction of smoke from these filters which is likely to be indicative of a lower biological activity of the smoke.

When H.D.P.E. was used as part of a dual filter an external consumer panel could detect no difference between cigarettes made with this filter and a control cigarette having a dual acetate/myria filter.

At this stage Monsanto is not in a position to make the H.D.P.E. filters to an accurate specification.

It is recommended that Monsanto be requested to produce a range of filters of different specification in terms of weight and pressure drop to determine how well they can achieve a set specification. It would be as well to order at least one of these specifications in sufficiently large numbers (possibly 50,000 to 100,000) to establish the long term variation in specification of the H.D.P.E. filters.

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