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Clearly this requires a considered reply or my return - could you have something proposed?!

L.C.F.B.
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ACK
FILE

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~~HEE Filter~~

Canada

Imperial Tobacco Limited/Limitée



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November 4, 1980

Dr. L.C.F. Blackman
Westminster House
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England

Dear Lionel:

I would like to comment on the policy point "Group R & D should provide basic building blocks...commercial developments" together with some views I have about items 23 and 24 (HEE filter).

It is now ten years since the discovery of the "blocking filter" phenomenon was passed from our laboratory to GRDC for scientific investigation and development, because we felt our resources could not deal adequately with its potential. The Celanese presentation "Cigarette Filters Providing Constant Puff by Puff Particulate Delivery" made me look up our "Original Record of Research" for 1970/71 where I find enlarged photographs of filter cross sections that are almost identical to those in the Celanese brochure. I attach a copy of a page from this book that clearly anticipates the Celanese presentation.

What I tried to say at Sea Island and during previous conferences is that GRDC has for years been flogging a particular engineering approach to implementation of the "blocking filter" principle without having done much to elucidate the underlying mechanism. GRDC has seemingly by-passed the "basic building block" stage in favour of a venture into a commercial development. Under these circumstances the assessment of the blocking filter principle is confounded with evaluations of a particular engineering approach to application of the principle.

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Celanese, by contrast, elected to construct a precisely controlled, albeit impractical, model to explore the principle. Would not this kind of approach, linked to explorations of the effects of tobacco types, casings, cigarette components such as paper porosity and tip ventilation, together with the insight your aerosol experts might uncover as to underlying mechanisms, lead to a more informed set of design requirements for materials of construction, design specifications and performance tolerances?

Regarding GRDC's program I would like to see the following more clearly reflected in the Sea Island notes, and perhaps more importantly in position papers such as #3.5 furnished to us at Sea Island.

- 1) A level delivery cigarette is a valid marketing concept which would satisfy a perceived consumer need. The discovery of an appropriate technology is an on-going research objective.
- 2) The "blocking filter" principle (possibly a poor term when the mechanism is understood) should be on the GRDC research program for elucidation and subsequent development into practical application, by as many novel designs as may be invented to exploit the principle.
- 3) There have been several attempts within the BAT group to commercialize the level delivery concept.
 - a) Southampton with its heat shrink filter, and B & W with Hallmark, tried two different design approaches to what might be termed "puff adjusted ventilation" as a means to achieve level delivery.
 - b) B & W experimented with its Program Filter design of a blocking filter.
 - c) The HEE filter is another attempted design of a blocking filter.

Returning to the role of GRDC as a provider of basic building blocks I think in this case GRDC has been diverted prematurely into a commercial development. On the other hand I think the number of new potentially applicable discoveries have been and are likely to be few and far between, so when something important surfaces, appropriate development plans should be made according to the nature of the discovery, the complexity of development, the marketing plans and technical resources of operating companies, and other factors that may have relevance.

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I don't think there's any doubt that the design of cigarettes for a particular market has to be done by operating companies in close harmony with their marketing people, and I agree with the general notion of GRDC being primarily oriented towards the basics. However I think BAT as a group could do a better job of organizing to exploit the few scientific discoveries that come our way. For this reason I think the "building block" statement should reflect the intention to plan appropriately in each case.

I know that I have been accused of having pushed to get the prototype HEE machine prematurely into Canada. In defense I can say that no one told me at the time it wasn't ready, and I have reason to believe that the whole project might have otherwise been dropped. Be that as it may I think the "blocking filter principle," if I may use the term, is too important to stand or fall on the success of the HEE filter machine.

Sincerely yours,



R. M. Gibb

enclosure

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