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Research into Human Smoking Behaviour

Highlighted below are two of the areas of work that have been pursued during the past year:

1. Examination of the smoking behaviour associated with the consumption of small cigars. The objective was to investigate the hypothesis that cigars are smoked in a different way to cigarettes, particularly with regard to smoke inhalation.

2. Preliminary work to assess differences in objective human smoking parameters for two cigarettes with significantly different subjective characteristics. Two initial findings have emerged which provide direction for future work, these being:

(i) The cigarette which was subjectively least preferred was the one for which the smokers obtained the highest deliveries of tar and nicotine.

(ii) The human puff by puff delivery profiles for tar and nicotine are confirmed as being different to those obtained by standard machine smoking.

In line with the thinking within other research centres, the future direction of the work will be centred upon the relationship between subjective assessment and objective measurement. In this respect the ITL rôle will be in relation to low delivery cigarette since such products represent a significant proportion of the Canadian market (approximately 20% of ITL sales volume).

In carrying out the work programme, it is recognized that some difficulties exist in terms of being restricted to in-house smokers. The possibility of using external smokers via Marketing Research focus groups is being explored.

The programme of work over the next three years will have two broad objectives:

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1. To support the ongoing product development activity, by establishing guidelines which relate the influence of the various combinations of cigarette design parameters to the subjective characteristics.

2. To obtain a better understanding of how both our own and competition products perform in the hands of consumers.

Specific project areas, aimed at meeting these objectives, are set out below:

1. Investigation of the influence of DIET tobacco on the way the cigarette is smoked. In particular, we will be attempting to assess the levels of inclusion which result in significant changes in human smoking parameters.

2. Examination of how people smoke cigarettes designed to give reduced CO:Tar ratios when smoked under standard conditions. The aim being to see whether the smokers are indeed exposed to reduced levels of carbon monoxide. In addition, the influence of low PD/low efficiency filters versus high PD/low efficiency filters will be covered.

3. The influence of tipping type and plugwrap combinations on the way the cigarette is smoked and how this relates to the subjective characteristics.

4. The interaction between human puff by puff deliveries and tar:nicotine ratios, the corresponding values obtained under standard smoking conditions and subjective characteristics.

5. Participation in a study to investigate the biological activity of smoke generated under human smoking conditions relative to standard smoking.

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