Lorillard
TOBACCO COMPANY

MEMORANDUM

September 3, 1991

TO: H. J. Minnemeyer

FROM: L. H. Gains

Subject: 1992 Radio-synthesis Budget Request (PROJECT H-414 TP; TESTCOMP A231, B31, B167)

Complete fate studies of cigarette additives have been defined to include determinations in three areas: migration and equilibration studies; material balance studies; and product-precursor studies. Such investigations into the fate of cigarette additives were formally proposed in October, 1990 and initiated during 1991 (1). Criteria used in selecting additives for fate studies include usage levels, degree of occurrence in our product range, and the presence or absence of previously published data on a specific compound. To date, three compounds have been selected for study according to these criteria: citral dimethyl acetal (CDA); (L)-(+)-tartaric acid; and glycyrrhizic acid. Radiolabeling syntheses for the first two compounds have been completed. Development work for the labeling synthesis of glycyrrhizic acid is in progress. Completion of the development work, tracer, and master labeling synthesis runs is anticipated for late in 1992. CDA was selected for study as a novel example of a filter additive. (L)-(+)-tartaric acid is used as an additive in virtually all of our packings at about 350 ppm and is a representative nonvolatile ingredient. Glycyrrhizic acid is also present at a significant level in most of our products and its product-precursor relationships have been of interest throughout the industry. Changing levels of market interest in new products which contain CDA have relegated CDA fate studies to a lower current priority. The radiolabeling synthesis and resolution of (L)-(+)-tartaric acid together with results of its smoke stream material balance and cigarette migration and equilibration studies will be presented at the TCRC this October. Data for glycyrrhizic acid will be obtained when the labeled compound becomes available and will also be published. Syntheses of other additives of interest will be initiated as directed by management.

Current hourly technical labor costs for radiolabeling syntheses billed at $77.88 for a maximum of 2090 hours totaling $162,769 and other direct costs of $45,000 were included and are being expended as part of the 1991 budget. Continued funding for the technical labor and other direct costs associated with the labeling syntheses is requested for the 1992 budget. These funds will be needed

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