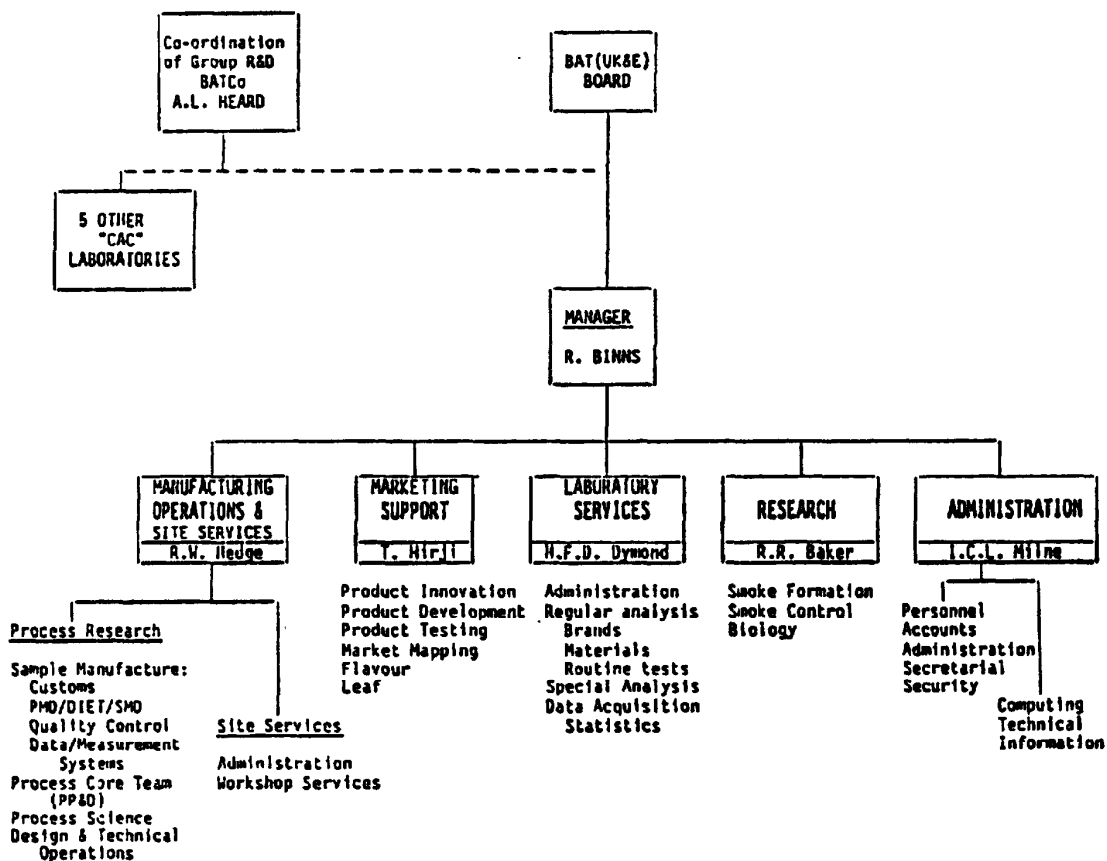


The technical side of the re-organised facilities in Southampton will be divided into four departments, which have been named to indicate clearly the activities which they cover :

MANUFACTURING OPERATIONS	Manager: R.W. Hedge
MARKETING SUPPORT	Manager: T. Hirji
LABORATORY SERVICES	Manager: H.F. Dymond
RESEARCH	Manager: R.R. Baker

There will be a much reduced Administration Department.

The diagram below shows the structure of the new Laboratory, and the work of its departments. You will be familiar with many of the work areas, but to indicate the extent to which some activities have been regrouped, and to stress that we do have continuity of effort in activities most relevant to you, I have prepared brief notes about each department and its work.



109887338

## MANUFACTURING OPERATIONS & SITE SERVICES

This department effectively provides small-scale factory facilities for experimental studies of all aspects of primary processing and cigarette fabrication.

### 1. Sample Manufacture

Facilities are available for experimental primary operations, work on expanded tobacco and the production of cigarettes for evaluation. Experimental studies on primary and secondary product, and product development exercises, provide the bulk of the work, much of which is carried out in support of Operating Companies. Quality control and work on monitoring systems, particularly for primary, are associated with this section.

### 2. Process Core Team (PP&D)

This team is fully committed to Primary Process development. There is a long history of process evolution and this is seen to continue. If the proposed new PMD is approved, this team will be able to run factory-scale blend/process trials in the Research & Development Laboratory.

### 3. Process Science

A positive demand has been made to supply from this site underlying knowledge of what happens at all stages of handling tobacco, from a mechanical/physics and a chemical viewpoint. New and modified objectives related to identified practical problems are to be formulated with BAT companies.

### 4. Design & Technical Operations

This section provides specifications for new processes to BAT equipment suppliers. Examples are the new lamina expansion process developed in Southampton, a new high humidity drier design and Surrey University's Fluid Bed invention (owned by BAT).

### 5. Site Services

Specialist staff familiar with the varied technical requirements of this department will be retained to avoid constant retraining. BAT(UK&E) will maintain the buildings and the site in sound condition.

## MARKETING SUPPORT

All the activities related to practical product development in-house and in support of Operating Companies will be consolidated within the new Marketing Support Department. This will cover four main areas of work :

1. Product Innovation with a leader experienced in product design, the innovative use of non-tobacco materials and in cigarette making technology. Additional expertise will be available in the development of low sidestream products and filter design.
2. Product Development support to Operating Companies. This group will include product developers, a leaf blender and a flavourist. Market "mapping" services developed from research will be applied in this section.
3. Product Testing will cover sensory testing (Taste & Flavour panels) and the application of smoker behaviour techniques for product development purposes.
4. The Flavour Manufacturing Unit, which supplies flavours to Operating Companies, will be amalgamated into the Marketing Support Department.

109887339

Over the past year, the product development support provided to Operating Companies and to Millbank departments has been increasing. This is especially so for companies in Europe, Africa and the Far East, and the trend is expected to continue. The product development activity will be strengthened by incorporating into it more fully Leaf and Flavourist expertise. The techniques for "mapping" and correlating blend chemistry characteristics and consumer perception, which were applied so successfully for Brown & Williamson, will be used to examine BATCo markets. Taste and Flavour panels will, of course, be used for product evaluation. Monitoring techniques developed for research into human smoking behaviour will in future be used only as a test method for product development, not for studying smoking styles.

There is a demand to develop cigarettes to meet specific market needs (e.g. designs for low weight cigarettes, value-for-money cigarettes, more efficient use of nicotine, low delivery cigarettes more acceptable to high delivery smokers). Such projects will require the investigation of non-conventional papers, novel filters, designs for slimmer cigarettes, more opulent cigarettes, or more generally practical, innovative product designs. The Southampton effort will be at a level in line with BATCo/BAT(UK&E) needs.

Concerning psychology studies, neither the techniques developed, nor the information produced from surveys of UK subjects are readily transferable on a Group-wide basis for use in modelling different markets and environments. In any event, many countries feel that this need is covered through their existing Market Research function. Therefore the Charter Research activities will not be retained.

#### LABORATORY SERVICES

This re-named department will provide all the facilities previously available in the Central Analytical Laboratory. In general terms, this means routine or non-routine analytical work, materials testing facilities, and the development of new and improved test procedures. The proposed new structure consists of three sections :

##### 1. Regular Analysis

This is sub-divided into Brand Analysis, Materials Testing and Routine Tests.

##### 2. Special Analysis

A small number of staff with complementary expertise in modern analytical procedures will be expected to respond urgently to problems from BAT(UK&E) and other BATCo companies.

##### 3. Data Acquisition

The third section will be responsible for data acquisition, interpretation and validation. Interpretation of analytical data will be the responsibility of a highly competent statistician.

A great part of the work of this department is in support of BATCo Operating Companies, and this activity is likely to grow. Specific queries on all aspects of laboratory work and management are dealt with. These include training, cross-checks on systems, technical support and advice on equipment. The number of requests for visits by Laboratory Services staff to overseas companies is growing as the principle of laboratory audit is gaining wider acceptance. It must be assumed that such visits will increase. Overall, the proposed structure allows us to maintain flexibility in this service-oriented group. In planning the department the demands of future commitments to international committees such as CORESTA and ISO have also been considered.

109887340

## RESEARCH

The Southampton laboratories have a widely recognised level of excellence in the scientific study of topics such as combustion, filtration and smoke chemistry. After a critical review of all research activities, a core team of scientists has been retained to investigate topics of this type which are seen to be of fundamental interest to BAT.

The overall objective of the group is to attempt to understand the physical and chemical processes occurring in the burning cigarette with a view to predicting or controlling them. Any developments in this area are therefore likely to be of relevance to product development. In recognition of this, by interchange of scientists in the recent re-organisation, there is now a much stronger link between the Research and Marketing Support departments.

The new Research Department will consist of three groups:

The Smoke Formation Group will research into the processes by which smoke is generated: combustion, aerosol formation, and the build-up of ambient smoke in environmental rooms, as well as computer modelling of the processes in order to aid product design.

The Smoke Control Group will develop concepts by which aspects of the smoke formation may be manipulated: sidestream reduction, filters and chemical control (enhancement of nicotine, reduction of undesirable products).

The Biology Group will provide expertise on tobacco leaf, hygiene, short-term in vitro biological screening tests, and toxicology.

109887341