

WORK AREA : 002.01

SUBJECT : Product Development Steering Group (PDSG) Projects

STRATEGIC OBJECTIVE :

To undertake project work on behalf of the PDSG to meet pre-defined objectives which are aimed at developing new product concepts (together with associated materials and cigarette making technology) to meet projected consumer and marketing needs. These will be broad-based rather than specific operating Company projects

PROJECT NUMBER	PROJECT DETAILS
002.01.102	<p>Title: Smoking pleasure and satisfaction</p> <p>Project Objective: To develop product designs which provide enhanced sensory characteristics compared to normal commercial products at the same delivery</p> <p>Key Tasks and Comments</p> <p>Current projects within this objective are:-</p> <p>(a) <u>AMPLIFIER</u>. The objective of this project is to determine the sensory consequences, for US-type cigarettes, of blending together (a) different styles of Virginia and Burley tobacco and (b) varying the blend proportions of these styles. Three Virginias for US-blended and English flue-cured heavy American and lighter-style Burls, whilst holding the remaining parts of the blend constant. From these blends a series of full-flavour cigarettes has been created, and, by use of filter ventilation, a parallel series of 'lights' products. Both series have been subjected to detailed smoke sensory evaluation. Relationships will now be sought between the sensory data and (a) blend composition, (b) blend density and (c) smoke chemistry.</p>

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SUBJECT : Product Development Steering Group (PDSG) Projects

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continued

(b) Box. A Product Development Specialist Meeting held in Venezuela for Central and South American Companies identified a need for a better understanding of the smoke sensory influences of traditional cigars in different forms. Thus the comparative effects of, for example, invert-v-non-invert sugar, block-v-spray-dried liquorice and low-v-high butterfat cocoa are inadequately understood. This information will be gathered using an AMPLIFIER base blend in such a way that the combined AMPLIFIER/Box set constitute a wide-ranging exploration of the influences of blend/caring variations in US-type products.

(c) POKER. A preliminary evaluation of an array of different flavour types has demonstrated a potential interest in lightly flavoured Virginia and modified Virginia products for a particular market segment. The initial study produced a preference for fruity, spicy and minty characters. Suitably subtle flavours of these types will be sought and tested amongst smokers in the opportunity segment. In addition to an evaluation of mainstream characteristics, materials which confer a sidestream modification as well may provide re-inforcement of the concept.

(d) Air-cured Plains. Imposing 1992 E.E.C. legislation will set maximum allowable limits on tar and nicotine deliveries which threaten to eliminate plain cigarettes from the E.E.C. Whilst for many product types, plain brands constitute a very small fraction of the market, plain air-cured products of the

401872502

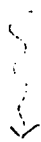
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Gauloises/Gitanes style remain very popular. The opportunity is thus presented to use blending, flavouring and cigarette design skills to create plain air-cured products which meet the sensory expectations of the franchise within the anticipated delivery criteria.



ADTECH, LIME, AFFIN, FROST, LFSG<sup>(?)</sup>  
(JAL)

401872503

WORK AREA : 002.03  
 SUBJECT : Leaf Studies

STRATEGIC OBJECTIVE :

To identify processes and blending guidelines for better utilisation of tobaccos including low quality grades, local and expanded tobaccos

PROJECT NUMBER	PROJECT DETAILS
002.03.100	<p><u>Title</u> Tobacco improvement</p> <p><u>Project Objective</u> To upgrade poor quality leaf by curing, flavouring, and processing - especially leaf treatment</p> <p><u>Key Tasks and Comments</u> Past experience with "problem" tobaccos supplied by various operating Companies has demonstrated that combinations of curing, flavouring and processing can "upgrade" such tobaccos to a usable quality. Whilst no simple 'rules-of-thumb' have emerged which would short-cut the task, the application of relevant skills plus past experiences with similar tobaccos enable different approaches to be pursued for a) poor-tasting tobaccos and b) flat and bland tobaccos. Project work will be undertaken as required in conjunction with Work Area 002.05.</p>
002.03.200	<p><u>Title</u> Modified Virginia products</p> <p><u>Project Objective</u> To design modified Virginia blends which meet a variety of product requirements, including flavour</p>

401872504

WORK AREA : 002.03  
SUBJECT : Leaf Studies

PROJECT NUMBER	PROJECT DETAILS
002.03.300 (cont'd)	<p>enhancements at low deliveries</p> <p><u>Key Tasks and Comments</u></p> <p>Modified Virginia blends are required for -</p> <p>a) low delivery Virginia blends - to increase flavour amplitude in what would otherwise be an extremely bland smoke and b) full-flavour Virginia blends - to increase acceptability for introduction into largely non-Virginia markets. New variants will, as required, continue to be explored at different levels of Surley and/or Oriental modification.</p>
002.03.300	<p><u>Title</u></p> <p>Support Activities</p> <p><u>Project Objectives</u></p> <p>To provide a leaf service comprising advice, blending trials, analytical interpretation, evaluation of new grades and provision of leaf samples</p> <p><u>Key Tasks and Comments</u></p> <p>A sample room containing a library of currently popular grades for all types of cigarettes has been set up and is up-dated as new crop years become available. In addition, some new and non-standard grades are also stocked. This enables unique blends of tobaccos to be put together on a trial basis as required by internal and external projects, to meet specific blend briefs. Equally, individual grades are available both internally and externally for export smoking trials. A service is also available to leaf</p>

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WORK AREA : 002 03  
SUBJECT : Leaf Studies

PROJECT NUMBER	PROJECT DETAILS
002.03.300 (cont'd)	Department, Millbank in which new grades/new growths are subjected to a range of leaf chemistry analyses.

4018/2506

WORK AREA : 003.01

SUBJECT : Product Development for BAT(UK&E)

STRATEGIC OBJECTIVE :

To develop products and provide technical support to meet existing and future BAT(UK&E) needs

PROJECT NUMBER	PROJECT DETAILS
003.01.100	<p><u>Title:</u> Product Development</p> <p><u>Project Objective:</u> To develop products which meet specific Product Briefs within agreed development and launch time-scales</p> <p><u>Key Tasks and Comments:</u></p>
003.01.110	<p><u>Market and Physical Test Reports</u></p> <p>Six-monthly reports on BAT(UK&amp;E) products taken from all markets, quarterly updates on these and quarterly physical testing reports will be produced.</p>
003.01.150	<p><u>Project CALENDAR</u></p> <p>Completion of any final pre-launch requirements for an Action filter low tar product for the Middle East market. The product must meet reworked delivery criteria based upon modified smoking protocols for channel ventilated products</p>
003.01.	<p><u>Project ABSTRACT</u></p> <p>Finalisation of a cigarette design specification for a lights version of an ultra-slim brand in the Middle East market. The decision has been taken not to proceed immediately with this development.</p>

401872507

WORK AREA : 003.01  
SUBJECT : Product Development for BAT(UK+E)

PROJECT NUMBER	PROJECT DETAILS
003.01.	<u>Project PAPHYRUS</u> Exploratory development of new blends, for Middle East brands, which are designed to increase their appeal to immigrant workers from the Sub-Continent.
003.01.	<u>Project KESTIL</u> Development of a product package in support of a new brand concept targetted at a specific consumer segment in a number of existing and potential BAT(UK+E) markets.
003.01.	<u>Project CAXTON</u> Determination of maximum tolerable levels of print ink solvent residues in large-lid <sup>packs</sup> and cartons to ensure that product taints caused by migration of residues to cigarettes is precluded.
	<u>Other Projects</u> Contingency resources are available to meet the needs of new project start-ups identified within 1990.

401872508

WORK AREA : 003.06

SUBJECT : Technical Support to Operating Companies with established 1:1 links.

STRATEGIC OBJECTIVE :

To provide Operating Companies with product technology expertise as necessary to meet existing and future company needs

PROJECT NUMBER	PROJECT DETAILS
003.06.000	<p><u>Title :</u> Technical support to Operating Companies (1:1 links)</p> <p><u>Project Objective</u> Through close and regular contact with Company technical staff and senior managers, to ensure appropriate transfer of product technology and product advice</p> <p><u>Key Tasks and Comments</u> Working links have now been established with 35 Operating Companies in the Group These are :- Argentina, Bangladesh, Benelux, Cameroon, Chile, Costa Rica, Cyprus, El Salvador, Finland, Ghana, Guatemala, Honduras, Hong Kong, India (both companies), Indonesia, Kenya, Malawi, Malaysia, Mauritius, New Zealand, Nicaragua, Nigeria, Pakistan, Panama, Sierra Leone, Singapore, South Africa, Sri Lanka, Switzerland, Trinidad, Uganda, Venezuela, Zaire and Zimbabwe. These links have been consolidated in the last 12 months through contacts resulting from seminars, product audits and other Operating Company visits, together with those established through Company visitors to the R&amp;D Centre.</p>

401872509

WORK AREA : 003.06

SUBJECT : Technical Support to Operating Companies with established 1:1 links

PROJECT NUMBER	PROJECT DETAILS
003.06.000 continued	<p>During 1989, Product Developments Audits were conducted for Companies in Bangladesh, India (both Companies), Indonesia and Uganda. Product Technology Seminars took place in Cameroon and Hong Kong (for delegates of these Companies) and in Indonesia (for delegates from Australia, Malaysia, Singapore and New Zealand as well as Indonesia). Other technical development visits were also made to El Salvador, Honduras, Kenya and Singapore. An exchange of visits has taken place with Venezuela which has substantially advanced the training of Bigott's new Product Development Manager.</p> <p>In addition, other Operating Companies with whom specific 1:1 contacts of this type have not yet been established will of course be provided with technical support as requested.</p>

401872510

WORK AREA : 003.07

SUBJECT : Technical Support to Millbank Departments  
and provision of seminars/courses

STRATEGIC OBJECTIVE :

To provide Millbank Departments with product technology support as required, particularly through the provision of inputs to Seminars and Courses

PROJECT NUMBER	PROJECT DETAILS
003.07. xxx	<p><u>Title:</u> Technical support to Millbank Departments</p> <p><u>Project Objective:</u> Through existing contacts with Millbank Departments, to ensure the provision of appropriate and up-to-date product technology inputs into Company courses and seminars</p> <p><u>Key Tasks and Comments</u></p>
003.07. xxx	<p><u>Chelwood</u></p> <p>An increasing number of delegates to Tobacco MDP courses necessitates an expansion in 1990 from two to three such courses, plus the annual MTC programme. Through liaison with Sales Department (Millbank), Sales and Product Technology inputs will be provided to all of these courses in 1990</p>
003.07. xxx	<p><u>Marketing Department</u></p> <p>Marketing Department organise and run a variety of courses which contain a Product Technology module. This provision is anticipated</p>

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WORK AREA : 003.07

SUBJECT : Technical Support to Marketing Departments and  
provision of IT Seminars/Courses

PROJECT  
NUMBER

PROJECT DETAILS

to be required in 1990

In addition to these Seminars/Course input requirements, R&D organise and run Product Technology Seminars to Operating Companies (003.06) and to BAT(UK&E) (003.01)

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WORK AREA : 003.10

SUBJECT : Flavour Development and Manufacture

STRATEGIC OBJECTIVE :

To formulate, manufacture and supply flavours in order to give Operating Companies distinct product advantages in their markets

PROJECT NUMBER	PROJECT DETAILS
003.10.100	<p><u>Title</u> Flavour Formulation</p> <p><u>Project objective</u> To ensure that current flavours offered to Operating Companies and new flavours formulated for project trials reflect recent flavour technology and conform to legislative and AGP requirements</p> <p><u>Key Tasks and Comments</u> The workload in 1989 was dominated by the Policy requirement to delete or replace coumestrol in all our cigarette products by the end of the year. Thus, within the year, all flavours affected by the policy have been reformulated and submitted to the appropriate Operating Companies together with phasing-out/phasing-in strategies where deemed desirable. The deadline is expected to be met. Work is now proceeding towards the implementation of the same policy for pipe and 100%-tobacco brands, to be completed as early as practicable within 1990.</p> <p>New Flavour requirements of Operating Companies have</p>

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WORK AREA : 003.10  
 SUBJECT : Flavour Development and Manufacture

PROJECT NUMBER	PROJECT DETAILS
003.10.100	<p>nevertheless continued to be met within the year. All new flavours generated, in addition to receiving AGP approval, meet the narrowest interpretation of Flavour Legislation which applies in the Territory in question; in addition, existing flavours receive reformulation where necessary to meet changing legislative requirements. New flavours benefit from new materials arising from Group and Flavour House research whose value has been recognised at Flavourist Workshops. Southampton will host such a workshop in early 1990.</p>
903.10.200	<p><u>Title</u>          Supply of flavours</p> <p><u>Project Objectives</u>          To supply flavours to Operating Companies at competitive prices and within time schedules</p> <p><u>Key Tasks and Comments</u>          In spite of political events in China, business into this market (via Hong Kong and Singapore) has again been substantial, though not at 1988 levels. The workload, however, remains heavy, since there has been a considerable requirement for          a) manufacture of trial batches of coumarin-free versions and b) manufacture of commercial size quantities of both coumarin-free and coumarin-containing versions to enable Companies to carry out phasing-out procedures.</p>

401872514

WORK AREA : 003.10

SUBJECT : Flavour Development and Manufacture

PROJECT NUMBER PROJECT DETAILS

003.10.300

Title  
 Flavour QC

Project Objectives  
 To ensure that incoming ingredients for flavours and outgoing manufactured flavours meet exacting quality specifications.

Key Tasks and Comments  
 An established Flavour QC is in place which conducts meticulous checks on a) ingredient batches received from suppliers and b) formulated flavours, prior to dispatch to Operating Companies. Thus flavours (i) are not manufactured from ingredients which do not meet specification and (ii) are not released to Operating Companies if outside laid-down standards. In late 1989/early 1990, customers will be supplied with detailed flavour specification sheets which indicate the standards adhered to and enable cross-checking if desired; the sheets will also provide flavour advice relating to safe handling, storage conditions and shelf life.

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