

R E S T R I C T E DRESEARCH REVIEW
21st-23rd March 1990SUMMARY NOTES

Present : Dr. C.J.P. de Siqueira) Souza Cruz
 Dr. L.T. Caruso) Brazil

Dr. P.J. Dunn) Imperial Tobacco
 Dr. S.R. Massey) Canada

Dr. E. Kausch) BATCF
 Dr. H. Borowski) Germany

Mr. E.E.Kohnhorst) Brown & Williamson
 Dr. J.S. Wigand) U.S.A.

Mr. A.L.Heard) BATCo, Millbank

Dr. R. Birms) BATUKE
 Dr. R.R. Baker) R&D Centre

These notes refer to the general discussions held on 22nd and 23rd March following the technical presentations.

During this part of the meeting, three discussion papers were presented outlining potential new project areas :

Chemosensory Research	(R.R. Baker)
Smoking materials, tobacco and smoke chemistry	(T.G. Mitchell)
Research into novel materials	(J.A. Luke)

In addition, proposals for a smaller programme on ETS studies had already been presented during the technical presentations. These new proposals were considered along with general discussions on the current work programme. The main points arising from these discussions on the current and proposed project areas are as follows :

Other Noxae

This general area of modifying tobacco with a view to reducing a broad group of smoke noxae was considered to be an important approach to future products. However, the project in practice is building a knowledge base and has concentrated on confirming tobacco precursor/smoke noxae relationships. It is not at the point of indicating tobacco treatment solutions to reducing smoke noxae.

There was general support to continue to build this knowledge base, including extending techniques such as enzyme treatment as a general means of producing modified smoking materials. After one year, the emphasis of the project may be altered toward indicating practical means of reducing noxae or of improving smoke sensory character.

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Bioassays

It was agreed that this area of work should continue as per the 1990 Work Programme. It was considered important that a battery of tests should be developed to guide product research and that over-emphasis should not be placed on the results of the Ames test - this should be useful as a screening test only.

ETS

It was felt that there was a need for Public Affairs departments to make use of the existing data and that real credibility could only be obtained by truly independent studies producing the same data. Consequently a reduced effort in this area was agreed, with a view to doing just sufficient internal work so that an expertise was maintained. This would be accomplished by two man years effort and a small amount of supervision from Dr. C.J. Proctor.

The proposed work on nicotine metabolites was considered important and it was suggested that small field studies in homes should continue. There was less support for furniture re-emission studies.

Total Sidestream Reduction

Further development of a low sidestream cigarette using modified papers developed with Papeteries de Mauduit is now at a product development stage and will not be pursued as part of the Group-funded research programme. Further research on material or paper modification will be pursued as part of the Novel Material modification programme.

Reduced Ignition Potential Cigarette

For technical reasons the development of a direct method for measuring cigarette ignition potential is proving more difficult than originally envisaged. Consequently progress in this project has been slower than anticipated. It was agreed to leave this project and allocated effort as it is at present and consider its effort allocation in a year's time when a direct measurement method should be available. The project will then be extended to the investigation of cigarette design features that influence the test results.

Project NOVA

It was generally agreed that this project was progressing well and producing worthwhile data. Although the objectives of this project are focussed and long-term, encouragement was given for spin-off projects with short-term application to be considered, perhaps for others to pursue. (However, prototype alternative products will not be developed).

Work on the third GREENDOT (all-synthetic) option was transferred to Project NOVA last October. This option should be pursued as part of the work on novel materials, with the Smoke Transfer Studies group of Project NOVA guiding the work.

Project GREENDOT

It was considered that the all-tobacco option (Project NATO) was product development and was no longer fundamental research. Consequently this work will be dropped from the Group-funded programme.

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Medium-term research on sheet material (Project WARSAW) would continue as part of the research programme, in novel materials work. IIL expressed the view that this area should be broadened to be in line with the original GREENDOT objective of producing "a highly modified tar in terms of composition, quality and dose".

Components of Tobacco & Smoke Database

There was broad agreement for this work to continue as planned, mainly using an industrial training student and adding chemical structures to the database during the next year.

NEW WORK AREAS

Chemosensory Research

There was agreement that it was important for this type of work to be done. However, IIL felt that it has not benefited from this type of work in the past and was unsure of future benefits. In discussion, it was stated that attitudinal tests had shown conclusively that consumers want nicotine but with as little tar as possible. Fundamental research is needed to achieve this aim and chemosensory research is an important approach. It was considered that the overall aim of much of the research work should incorporate the production of a sensorially acceptable smoke.

It was considered that the programme outlined in the chemosensory paper was too broad for four or five chemists to pursue. The work should be more concentrated.

It was agreed that a meeting of relevant scientists within the Group would be held in order to develop this programme. IIL agreed to participate in this meeting and then assess the relevance of the programme to them.

ACTION : R.R. BAKER

Smoking Materials, Tobacco & Smoke Chemistry

The paper presented outlined a proposal for a work area aimed at understanding the chemistry of new processes and materials, the stability (or pyrolysis) of additives and flavours during their transfer to smoke, and the effect of contaminants on smoke chemistry. This work would be aimed predominantly at regulatory authority requirements for new processes, etc.

There was general, although not unanimous, agreement that work in this area should be undertaken. This would involve a work area of 3 or 4 people, mainly chemical analysts.

For some processes, such as ammonia technology, there is already considerable chemical information available. It was agreed that there would be a meeting of relevant Group scientists to determine what type of information was required by way of establishing a solid knowledge base of tobacco combustion products and for specific processes, materials, additives, etc.

ACTION : R.R. BAKER

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Novel Materials Research

The paper presented outlines an integrative approach for research into new materials. This would bring together several related topics currently undertaken in different sections : sheet material for ultra low tar/nicotine products (from Project GREENDOT); materials for alternative products (for Project NOVA); the science of foam structures (from extrusion project); modification of tobacco (other noxae studies); material development for low sidestream, including paper development.

It was agreed that this integrated work area would proceed and that it should bring about synergistic interaction between the different work areas. It was pointed out that new materials from the medical and aerospace industries should also be considered.

Concluding comments on future work programme

The future programme will include chemosensory research, analytical data as a basis for alternative smoking materials and some additional materials research, as outlined above. The materials research will bring together related work from several different sections. The overall effort on ETS will be reduced.

It was suggested that work areas should not necessarily be focussed towards one single objective, but could be made broader. For example, the current "other noxae" work is specifically aimed at tobacco modification as a means of reducing certain smoke noxae; a broader objective could be tobacco modification for product opportunities.

The general objective for future Group-funded research in Southampton will be :

To carry out research for the CAC companies in order to provide the scientific information and technical avenues required for evolutionary products aimed at delivering adequate levels of nicotine with minimum accompanying levels of other components, so as to meet future consumer and regulatory authority needs.

Other Subjects

1. It was agreed that the Group Research Programme database would continue in its present form.

ACTION : R.J. BAKER

2. Concerning the proposed R&D Document Retention Policy, general concern was felt over 5 year retention for Reports emanating from other Group R&D Centres. A strong preference for indefinite retention of these Reports was expressed. Individual companies will return comments to Millbank Legal Department.

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