ONLY THE TITLE PAGE AND THE SUMMARY PAGE ARE HELD ON THIS FILE

THE FULL REPORT CAN BE SEEN ON APPLICATION TO CENTRAL FILING

FILTRATION OF PHENOLS: PROGRESS REPORT NO.1

LABORATORY REPORT NO.L.64-R 29.8.62.

AUTHORS: H. G. Rothwell
H. F. D. Dymond
M. G. Ivinson

APPROVED BY: I. W. Hughes

ISSUED BY: D. G. Felton PROJECT No. 3200

DISTRIBUTION:

D. S. F. Watson Esq., Copy No.	1
Sir Charles Ellis	2
W. D. Anderson Esq.,	3
R. A. Boothroyd Esq.,	4,5
T. W. Wade Jun. Esq.,	6
L. C. Lynarts Esq.,	7,8,9
W. W. Reid Esq.,	10,11
Herr H. Sottorf	12
E. C. Fieldsend Esq.,	13
Library	14
File 41B-9	15

COPY No. 15
(File 46B-9)

10009605 2

Research & Development Establishment,
British-American Tobacco Co.Ltd.,
Southampton.

RCH/RFD/MGI/LT/46B-9

24th August, 1962.

FILTRATION OF PHENOLS: PROGRESS REPORT NO.1

(Laboratory Report No.L.64-R)

SUMMARY AND CONCLUSIONS

An account of the progress to date on the work concerning the filtration of phenols in cigarette smoke is given.

An attempt has been made to develop a reliable and accurate method for the measurement of the phenol content of cigarette smoke. Using this method the efficiency for phenol removal of a 15 mm. length of 8/30,000 cellulose acetate filter was found to be 42%, this being two to three times higher than the efficiency for nicotine.

Following as closely as possible the method of phenol assay used at Louisville the efficiency of the same filter is 50%. As yet, the reasons for this divergence in result have not been resolved.

Some preliminary experiments aimed at a rapid procedure for measuring filter efficiency for phenols are also described.

Using a screening method, involving the passage of phenol vapour through filter materials under test, it is shown that the efficiency of a paper filter for phenol removal can be increased from the normal value(about 12%)to as much as 90%, by the addition of polyethylene glycol (M.20,000) to the filter.