

CONTROL OF THE USE OF ASBESTOS-CONTAINING FRICTION MATERIALS*

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INTRODUCTION

This paper outlines the measures taken by the asbestos-using industry to find out the nature and causes of asbestosis, and the work it has carried out on environmental control. Particular reference is made to dust created during the manufacture and subsequent handling and machining operations of friction materials containing asbestos.

It is rather less than 40 years ago that the need for control of asbestos dust in large quantities was first recognised and the Government Regulations which became law in 1933 have resulted in a considerable improvement in the health record of people employed in asbestos factories.

In the 1950's, however, it became apparent that although the improvement had been dramatic, cases of asbestosis were occurring in people who had joined the industry since the dust control measures were introduced and it was also apparent that certain users of asbestos products, such as thermal insulation engineers or ladders were also being affected.

As a result of this the three leading Companies in the asbestos industry, B.B.A. Group, Cape Asbestos and Turner & Newall, decided that further investigation into the nature and causes of asbestosis was necessary and they financed and set up the Asbestosis Research Council with this objective. Since then the Asbestosis Research Council (ARC) has continuously sponsored research at Cambridge, Reading and other centres and has co-ordinated the work of its own research, medical and engineering teams concerned with this problem.

Much of the increased awareness of health problems connected with asbestos stems from these research projects and the industry's own experts are acknowledged, and have been consulted regularly, by Government Departments and other organisations both in this country and overseas. The ARC has drawn up some Codes of Practice on the handling of asbestos in those areas where the control of asbestos dust was thought advisable at that time. The ARC has also played an active part in the formulation of the new Asbestos Regulations which are expected to become law in about 12 months.

Because of its considerable experience in using asbestos and asbestos products itself and its concern that these products should be used without risk, it set up an additional committee last year with the principal object of intensifying the study of problems arising in the working environment, dealing with those areas where it had only

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recently become apparent that some control might be necessary and helping those concerned with satisfying the requirements of the new regulations.

This Committee is the Environmental Control Committee of the Asbestosis Research Council and it consists of a number of working groups concentrating on the special problems of particular areas. One of these Working Groups is being devoted to the field of friction materials, and has, as its constituent members, Small & Parkes (makers of Don materials), Ferodo and Mintex. This Group, which has been formed recently, is concerned with the users of friction materials, both at its major customers—the brake, clutch and car manufacturers—and also in the replacement and service field.

Its concern has been, first of all, to establish whether or not a problem exists and, if so, how big a problem it is. To this end dust counts have been taken both in premises where friction materials are handled and serviced, and at customers' premises, by the three Companies principally involved. These tests have been taken by their own dust counting teams who have many years' experience in accurate dust measurement. This work is continuing and a picture is being built up of dust counts likely to be encountered whilst carrying out typical operations during brake and clutch maintenance. Analysis of the dust found in brake drums is being carried out also to determine whether all the fibrous dust is asbestos or not.

In addition to gathering and collating information on a large number of dust readings in various types of service premises, the Working Group is preparing two codes of practice for users of asbestos-based friction materials which will be issued by the Asbestosis Research Council. One of these is for the guidance of bulk users in factory premises carrying out, in some cases, operations similar to those carried out in our own factories, such as drilling and grinding, and the other is for the guidance of those engaged in servicing of brakes and clutches.

The purpose of these Codes of Practice or Notes for Guidance will be to remind users of the principal requirements of the new Asbestos Regulations to recommend the action that they should take to meet their requirements. The aim is to achieve what is, after all, the whole purpose of the Asbestos Regulations and the Asbestosis Research Council's work—to reduce concentrations of asbestos dust to a safe level. The long experience of the manufacturers of friction materials in dust control over a wide variety of operations will enable them to recommend measures and types of equipment to help the users to comply with the Regulations and protect the health of their employees.

A further line of study is being followed to see whether a satisfactory surface-sealing agent can be found in order to cut down the amount of dust given off in handling a new lining, even though this amount is already small.

It is not possible for us to take dust counts in every service garage in the country and the work of the Friction Materials Group has been directed to dealing with, and giving advice on, situations which are likely to be typical of those found in service garages. It is, however, the intention to give as much help and advice as possible with the facilities that are available and requests for help or advice directed to the Asbestosis Research Council will be passed on to the Working Group for action.

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