Book reviews

Problems Arising from the Use of Asbestos. Memorandum of the Senior Medical Inspector's Advisory Panel. (Pp. 35; 3s. 9d.) London: H.M.S.O. 1967.

Dr. T. A. Lloyd Davies is to be congratulated on both setting up this advisory panel and producing this memorandum. His panel is well chosen, representing academic and practical experts with a keen interest in this particular problem, so that it is not surprising that the report is an excellent summary of the present position in the British asbestos industry. The report does not underestimate the problem that has been created by the rapid expansion in volume and variety of asbestos usage just at a time when the dangers of late development of malignancy have been recognized. It emphasizes the unsatisfactory conditions which still exist in some parts of the industry. The recognized deaths from asbestosis are still rising—18 per year on the average for 1951–60 whereas 64 died in 1966 and of these 30% and 66%, respectively, died of lung cancer or mesothelioma. It also points out that there may be similar unsatisfactory working conditions in other trades using asbestos which have not been recognized.

In formulating their recommendations the panel discuss both the evidence from industry concerning the effect of safety measures and the epidemiological evidence relating mesotheliomas to crocidolite exposure. They point out that whereas satisfactory safety standards can now be laid down for the factory use of chrysotile, standards for the factory use of other forms of asbestos, especially crocidolite, can only be guessed at. Similarly, the use of asbestos and asbestos-containing materials in other industries is as yet uncharted territory apart from the insulation workers.

With respect both to standards of safety and to crocidolite and mesotheliomas the panel point out the need for further research before precise recommendations can be made.

The panel strongly recommend that all asbestos-exposed workers, whether they are in trades already known to be hazardous or not, should have a pre-employment examination and regular periodic examinations. They require this for the early detection of evidence of pulmonary fibrosis in the hope that exposure levels sufficient to cause asbestosis or cancer of the lung can be stopped as soon as possible. They doubt the value of periodic examination for the prevention of mesothelioma and are unwilling to specify the stage at which an asbestos worker should be withdrawn from further exposure.

It is against the background of this memorandum and the equally good *Hygiene Standards for Chrysotile Asbestos Dust* issued by the British Occupational Hygiene Society that the current 'Draft Regulations' should be viewed and found wanting.

P. C. ELMES

Hygiene Standards for Chrysotile Asbestos Dust. (Pp. 28; no price stated.) Oxford: Pergamon Press. 1968.

This little booklet is of considerable importance for all those concerned with the prevention of occupational disease. It contains the first satisfactory attempt to base a hygiene standard on the analysis of quantitative morbidity and exposure data. Admittedly this is limited in its application to one kind of asbestos, chrysotile, and is probably only useful for the prevention of pulmonary fibrosis rather than the malignant diseases which can also follow exposure to asbestos. But nevertheless it represents a considerable step forward as a method of preventing an industrial disease: it is a pity that official policy falls short of this standard.

The studies upon which the standard is based were carried out at a factory where the exposure is virtually limited to chrysotile asbestos fibres. Morbidity and mortality studies have already been published (Knox, Doll, and Hill, 1965). The dust exposure of the occupational groups was derived from sampling by various methods from 1951 onwards. Estimates are used to assess the exposure between 1933 when the old Regulations became effective and 1951 when dust sampling was started. It is assumed that fibres shorter than $5\ \mu$ are not important.

The very distinguished committee who have assessed the data estimate that an exposure of 100 fibre yrs per cm^3 (whether this is 2 fibres/ cm^3 for 50 years or 20 fibres/ cm^3 for 5 years) is the maximum permissible allowed for any worker as this may be associated with a 1:100 chance of developing clinical asbestosis during the man's working life.

They recommend that no one should be allowed to exceed this total exposure and detail the methods of protection which should be used at the various dust levels.

Furthermore, they make the very important recommendation that these measures should be supplemented both by recording each man's exposure and by medical supervision with periodic examination. On the basis of such continued supervision they recommend that the