

Control of the Asbestos Hazard

IN his Rock Carling Memorial Lecture last week on the prevention of cancer Dr. RICHARD DOLL noted that malignant mesothelioma seemed to be associated in some cases with very small exposures to asbestos, and he advocated a system of control by licence of the import and use of what is probably the most dangerous form of asbestos—crocidolite or blue asbestos. These views accord with the change in attitude noticeable lately in official statements on this subject from several sources. Until a few months ago pronouncements were being made that only blue asbestos can produce mesothelioma,¹ that exposure sufficiently gross as to produce clinical asbestosis is required before malignant disease can develop, and that the hazards of contracting either asbestosis or malignant disease from asbestos are confined to those engaged in the mining of the mineral or in the manufacture of goods for which crude asbestos must be processed.² Another statement³ was that dockers had been informed that it was impossible to pack asbestos in airtight containers because the asbestos "would die and would be useless for certain types of manufacture." Now it has been declared unequivocally that "crocidolite is not necessarily the only type of asbestos that may be involved",⁴ and investigations in the U.S.A.⁵ support this view. At a coroner's inquest⁶ a mesothelioma was presumed to be due to asbestos exposure in a man who did not have asbestosis or even asbestos bodies. British Rail announced⁷ that asbestos was no longer used as insulation in railway carriages because of possible danger to men in the workshops where panelling was removed, and glass fibre was used instead. The British Asbestos Industry last month announced⁸ measures to protect the health of those working with or handling asbestos; these include proposals that all asbestos fibre shipped to this country shall be packed in dustproof bags, and that all blue asbestos shall in addition be shipped on pallets which can be handled mechanically. Also the industry is "urgently examining afresh the use of blue asbestos for processes and products where there is the slightest risk of the emission of respirable dust, with the intention of limiting its use and rendering the processes and products themselves safe beyond any doubt". Finally, the long-awaited draft Asbestos Regulations,⁹ to supersede those of 1931, have been issued and circulated to "interested parties" for criticism.

These positive acts and proposals are a welcome sign of a more rational approach by the industry and some concerns using asbestos. The Factory Department of

the Ministry of Labour has been seeking to improve conditions for a very long time; and much credit for the advance must also go to those medical research-workers who have studied the problem for so long with unremitting care, particularly, in this country, the M.R.C. Pneumoconiosis Research Unit at Penarth, led by Dr. J. C. GILSON and Dr. J. C. WAGNER, and the team from London headed by Dr. MURIEL NEWHOUSE. But the time for complacency has not yet arrived. The Draft Regulations as they stand contain provisions which, on the one hand, may be too stringent to be practical in industry, and which, on the other, may be objectionable to the community outside the factory. An example of the first shortcoming is the requirement that equipment be installed which "produces an exhaust draught which prevents the escape into the air of any workplace of dust consisting of or containing asbestos". Such an outcome would be ideal, but is it really possible? Legislation which cannot be enforced tends to be neglected. Might it not be more realistic to specify a maximum allowable concentration, which would allow some action to be taken if an infringement occurred? The second difficulty is exemplified by the clause which requires any premises to be used in the future to have "installed in it a fixed vacuum cleaning equipment which has ducts . . . (and) is so designed that no dust consisting of or containing asbestos can escape or be discharged from it into the air of any workplace". It is possible to envisage a situation where such dust might be discharged to atmosphere through a vent leading outside the premises covered by the Factories Act. What protection would dwellers in the neighbourhood then have? To meet this situation, could not some more specific clause be provided than the one appearing under the heading "storage and distribution" which reads: "No loose asbestos or asbestos waste shall be received into, distributed within or despatched from a factory except in suitable closed containers which prevent the escape of dust therefrom"? Discussion will doubtless produce a better Draft, but it will probably be a long time before the Regulations pass into law. The Carcinogenic Substances Regulations, the first Draft of which was circulated in August, 1964, have not yet come into force.

Furthermore, measures under the Factories Act cannot protect users who do not themselves come under that Act. It seems quite plausible that inhalation of dust from such activities as sawing or sanding material containing asbestos may present a small hazard outside as well as inside industrial situations. It seems not unreasonable, therefore, to insist that materials containing asbestos should be clearly marked to show this, so that adequate precautions can be taken by the users. For instance, amateur handymen sawing materials containing asbestos could easily wear a makeshift mask, and either work out of doors or in a well-ventilated room.

On the other hand, there is a danger that workers' representatives may overrate the dangers of dealing with asbestos under good conditions. It would be ludicrous to outlaw this valuable and often irreplaceable material

1. *Nature, Lond.* 1967, 213, 895.
2. Lawrence-Smith, A. M. Occupational Health Circular no. M. 1/66. Medical Department, Port of London Authority, 1966.
3. Lewis, W. D. *Times*, Nov. 13, 1966, p. 12.
4. Gilson, J. C., Wagner, J. C. *Nature, Lond.* 1967, 213, 1170.
5. Selikoff, I. J., Churg, J., Hammond, E. C. *New Engl. J. Med.* 1965, 272, 560.
6. O'Donnell, W. M., Mana, R. H., Grosh, J. L. *Cancer, N.Y.* 1966, 10, 1143.
7. See *Lancet*, May 13, 1967, p. 1054.
8. *Times*, April 11, 1967.
9. Asbestos Information Committee. Press release, May 19, 1967.
10. Draft Statutory Instruments. Factories: The Asbestos Regulations. Ministry of Labour.

