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PLAINTIFFS
EXHIBIT

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THE ASBESTOS INFORMATION COMMITTEE

Memo to: H D S Hardie Esq
AIC Sub Committee
/Dr S Holmes
Dr W J Smither

Wednesday
14th April
1976

From: Mr W P Howard

The AIC decided at its last meeting that we should produce a leaflet setting out the facts on mesothelioma as we understood them. I should be grateful for your comments on the enclosed draft.

W P Howard

W P HOWARD
Secretary

WPH/JG
Enc

DRAFTMESOTHELIOMA

Now that there is general acceptance of the adequacy of the current standards to protect workpeople from the risk of contracting asbestosis and lung cancer, the major area of expert concern is in the risk of another disease, mesothelioma. The cause of this concern is the reporting of cases which are allegedly the result of relatively slight exposure to asbestos. They are sometimes adduced to challenge the adequacy of the precautions incorporated in Government regulations and recommended by the asbestos industry.

It will take time, perhaps several years, before we can be completely certain of the effectiveness of the current UK standards, but there are pointers which should encourage us to persevere with them.

A DEFINITION

Mesothelioma is a malignant tumour. It affects the pleura, the lining of the chest wall, or the peritoneum, the lining of the abdominal cavity, where the stomach lies. There is no known treatment.

INCIDENCE

Mesothelioma has attracted a great deal of public attention in recent times, but it is nevertheless a rare disease. The number of new confirmed cases has never exceeded 200 in any one year in the UK, compared with over 30,000 cases of lung cancer reported every year.

THE CAUSE

At least 15% of British cases appear to be "spontaneous", i.e. to display no clear causation. The remainder have in the past occurred in people exposed to asbestos dust, evincing symptoms of the disease at any time from 15 to 50 years since first exposure. Most were exposed at work. Some were exposed because they lived close to an asbestos factory many years ago when asbestos dust was allowed to escape into the surrounding atmosphere, some because husbands brought dust home on their workclothes. There seems little doubt of the association, since pathologists at post mortem have found a burden of asbestos fibre in the patients' lungs, much higher than found in the general population.

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There is, however, considerable doubt of the asbestos association in the case of people who have only been exposed as a result of their hobbies, or living in or near buildings incorporating asbestos materials. There are many reasons for this doubt:

- 1 The evidence of exposure is based on recollection of incidents long ago. Few people have this kind of total recall. Frequently the evidence of exposure is incomplete because it is based not even on the patient's own recollections but on that of his relatives, who will rarely have been able to provide a complete occupational history.
- 2 The corollary of this is that recorded casual exposures may in fact have involved other quite heavy exposure unbeknown either to the patient or to his relatives, which only the most thorough investigation would bring to light.
- 3 The casual "hobby" or "domestic" exposures are not supported by corroborative evidence of asbestos fibre bodies, asbestos fibres or pleural plaques observed in the lungs at necropsy⁽¹⁾. It is therefore always possible that many, perhaps most, of these casual cases should more properly be added to the 15% of "spontaneous" mesotheliomas.

WHAT TYPE OF FIBRE?

Mortality studies have been undertaken in many countries among populations of workers exposed to asbestos. They reveal increasing evidence that the risk of contracting mesothelioma differs with the type of asbestos. It is greatest with one type of crocidolite (blue asbestos) from a particular area in South Africa, less with amosite and apparently less with chrysotile. It has never been associated with anthophyllite⁽²⁾.

A DIFFERENTIAL STANDARD

The standards associated with the 1969 Asbestos Regulations recognise this difference by applying very much more stringent controls to work with crocidolite (blue) than are applied to the other types of fibres. Whereas the standard for the latter is 2 fibres per millilitre of air (2 f/ml) the standard for crocidolite is 0.2 f/ml⁽³⁾. The asbestos industry itself, when first appraised of British experts' anxieties over crocidolite, decided in 1968 to phase it gradually out of use in its processes. Since 1970 no crocidolite fibre has been imported into this country. Work which now involves crocidolite is largely ^{confined to} the repair or dismantling of old installations which contain it. There is an obligation under the Regulations to give the Factory

Inspector 28 days' notice before such work commences, so that he can be assured that all the proper precautions are being taken.

GROUNDS FOR CONFIDENCE

Cases of mesothelioma occurring today as a result of asbestos exposure do not reflect current working conditions and should not be adduced to impugn the adequacy of today's British threshold standards. Certainly the occupational and near-occupational exposures of a previous generation, which gave rise to the mesotheliomas reported today, were vastly greater than those encountered in any workplace which satisfies the current Regulations. And they have included crocidolite exposure which for all normal asbestos work is a thing of the past.

DOSE-RESPONSE RELATIONSHIP

This confidence is reinforced by the growing body of evidence that for mesothelioma, as for asbestosis and lung cancer, a dose-exposure relationship exists. This means that the likelihood of contracting the disease is related to the length and severity of the exposure⁽⁴⁾. It appears that in most cases where the exposure has been short, e.g. of the order of 5 weeks, it may well by today's standards have been heavy⁽⁵⁾. In the ^{few} cases where crocidolite (blue) has not been involved, the exposure has been heavier still.

A RISK TO THE PUBLIC?

All the evidence of an association between mesothelioma and air pollution in the neighbourhood of factories relates to conditions many years ago, when chrysotile, amosite and crocidolite were all in use in many factories, and when asbestos emissions into the atmosphere were often inadequately controlled. Measurements taken in the urban atmosphere nowadays reveal amounts of asbestos fibre which are so infinitesimal as to be negligible, at least 1,000 times less than would be acceptable for factory work⁽⁶⁾. Measurements taken in buildings which incorporate asbestos materials in their structure have shown levels of asbestos fibre which do not place the occupants at risk⁽⁷⁾. Thus there is no risk to the general public at present? from these low levels of exposure to asbestos⁽²⁾. Care should of course be exercised in do-it-yourself work on asbestos products in the home, but the normal use of asbestos products should not be a cause of anxiety.

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1. Mesothelioma Register 1967-8

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2. Report of the Advisory Committee on Asbestos Cancers to
the Director of International Agency for Research on
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3. Department of Employment Technical Data Note 13 (revised)
Standards for Asbestos Dust Concentrations for use with
the Asbestos Regulations 1969.

4. Cancer among workers in the Asbestos Textile Industry

Muriel Newhouse

"Biological Effects of Asbestos" pp 203. IARC October
1972.

5. The Medical Risks of Exposure to Asbestos

Muriel Newhouse, The Practitioners, September 1968.

6. Chrysotile Asbestos in Urban Air

A L Rickards and D V Badami

Nature, Vol 234, 12 November 1971.

7. Dust Survey carried out in Buildings incorporating
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J C Byrom, A A Hodgson and S Holmes.

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