

November 2, 1967

Mr. R. D. Bradford, President
American Smelting and Refining Co.
120 Broadway
New York, N. Y. 10005

Dear Sir:

This is to comment on Mr. Sprague's letter to you of October 26 inquiring as to any health problems associated with Chrysotile asbestos.

For many years we have known that years of daily occupational exposure to very high levels of asbestos dust could cause a lung disease called asbestosis. It has been found that there is an increased incidence of lung cancer among men with asbestosis. Recent studies, however, suggest that lung cancer may be more common among workmen having prolonged exposures to very high levels of any dust, not just asbestos dust. There may be nothing unique about asbestos.

Also there is thought to be a relationship between asbestos dust exposure and a rare kind of cancer called mesothelioma. But the association is not established with Chrysotile asbestos. Rather it is established principally with exposure to the Crocidolite variety.

Forbidding the use of asbestos fiber in wall board for home building on the basis of what is known seems to be a rather hasty and arbitrary action. In my opinion dust exposures involved in the installation of wall board would be intermittent, incidental and not at all comparable to those involved in the kinds of work that have induced asbestosis. Once installed, the wall board would not of course offer any dust exposure to the home occupants.

Mr. R. D. Bradford

Attached is a paper which gives further information and which summarizes very well the present state of affairs regarding asbestos and health.

Very truly yours,

KWN/mb
Encl. *filed under asbestos*

cc: R. B. Sprague (w. encl.)
M. J. Messel.
D. H. Soutar

Sent to Mr. Bradford 11-2-67

A British Release

ASBESTOS AND HEALTH

For information

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Arising from recent press publicity, sometimes ill informed and exaggerated, widespread concern is being expressed by those who process or handle asbestos or asbestos goods regarding the possible health hazards. The object of this document is to attempt to put the present situation in its proper perspective so that processors and users of asbestos materials may be given advice and re-assurance as required.

For many years the only industrial disease known to be directly associated with asbestos was a fibrosis of the lung known as asbestosis. This disease was rightly assumed to be caused by exposure of the worker over long periods to high concentrations of asbestos dust and the first step in dealing with the situation was the introduction of the Asbestos Industry Regulations, 1931. These Regulations laid down certain rules covering the handling of asbestos fibre in the manufacturing side of the industry and the result was an immediate and significant improvement in working conditions. Dust control measures were introduced and since that time steady progress has been made in reducing the levels of dust concentration at all factory processes. The result of these efforts has been a steady and substantial fall in the incidence of asbestosis where controls have been applied, leading to the view that the disease can be eliminated by taking steps which are in line with modern industrial practice. Taking the asbestos industry as a whole, statistics show that the incidence of asbestosis has risen in recent years and is still rising, which appears contrary to what has just been said. The rise is due, however, almost entirely to the inclusion in the statistics of asbestosis cases among workers in the insulation contracting industry which is not governed by the Regulations referred to, and where it was not at first realised that working methods and conditions needed to be controlled.

In recent years some cases of cancer of the lung or bronchus associated with the asbestosis have been observed, particularly among older workers. It must be emphasised that this increased incidence of cancer only occurs as a result of asbestosis, and not directly as a result of asbestos exposure, if the latter has not been sufficiently severe to lead to asbestosis. It therefore follows that if environmental conditions are controlled to a level at which asbestosis is eliminated then the associated lung and bronchial cancer will also disappear.

Although this association between asbestosis and lung cancer is a serious matter, it has not been the subject of alarmist publicity because the industry has demonstrated conclusively that it is capable of control. The recent articles and comments in the press have been directed towards an entirely different health hazard, namely, the possible relationship between asbestos exposure (without asbestosis) and a rare form of cancer known as mesothelioma. Mesothelial tumours are found in the pleura or peritoneum and their exact relationship to asbestos is still under investigation. There is no doubt that the main association is with crocidolite (blue) asbestos; any association with chrysotile (white) asbestos (the type mainly used in asbestos textiles and asbestos reinforced plastic products) is much less definite. No connection at all has

so far been established between mesothelioma and amosite, the type of asbestos used most widely in the insulation side of the industry. The disease is very rare, there being only 500-600 cases on record in the world, compared with over 20,000 cases of lung cancer in Britain alone every year. Records at the London Hospital show that only 83 patients have died of mesothelioma over a period of almost 50 years. About half the cases had had some contact with asbestos, in a further number contact was not certain, and about a quarter had had no contact at all. Furthermore, the hospital in question serves an area which includes a large asbestos factory as well as the London Docks, so it is certain that a very large number of people have been exposed to some degree.

So much for the facts. It now remains to consider those processes involving the handling of asbestos and asbestos products where a hazard might exist and, if possible, to assess the extent of the hazard with a view to taking adequate preventive measures. In assessing any process, two main considerations must be taken into account - the extent to which the process generates airborne dust and whether it is an occasional or a regular operation. For instance, processes covered by the present Regulations only come within the orbit of these Regulations if they involve the employment of any one person for more than eight hours per week. This is a very arbitrary boundary, however, and a better principle to adopt for dusty operations would be to protect the operator where the work is occasional and control the operation where the work is continuous. The method to be adopted for occasional work would be the wearing of an approved respirator by the worker coupled with careful handling of the material; for continuous work, engineered control such as ventilation or damping with the required degree of enclosure is recommended. *Well said*

Examples of processes which are liable to generate significant amounts of dust are the handling of loose asbestos fibre, the sawing or machining of asbestos mill-board and asbestos reinforced plastics, or the drawing of asbestos yarn through apertures at high speed. The handling of asbestos cloth can also lead to the emission of dust in certain circumstances. The simplest method of controlling the operation is to apply damping where possible, otherwise ventilation and/or enclosure may be necessary. Cloth may be specially processed to reduce dust on handling. Simple operations such as the fitting of dry asbestos packings in pump glands and the cutting of sheet jointing materials containing asbestos are not considered hazardous, nor is the wearing of asbestos clothing.

To sum up, asbestosis with or without lung cancer is not likely to occur except in conditions involving lengthy exposure to fairly high dust concentrations. The controls applied in the manufacturing side of the industry have demonstrated that the disease can be minimised and possibly eliminated by limiting airborne dust to a reasonable level. It follows that most uses of asbestos products and many operations upon process materials are free of risk in this respect, while those evolving substantial amounts of dust can fairly readily be made safe by established methods of damping, ventilation or enclosure. The exact measures to be taken will vary with the circumstances and the Asbestosis Research Council is at present working on a Code of Practice which is being made as comprehensive as possible. In the meantime, every effort will be made to deal with individual problems as they arise. Finally, whatever the connection between mesothelioma and asbestos exposure in general, any association between this extremely rare disease and white asbestos, which has been widely used throughout the world for many years, is still very indefinite.

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