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PLAINTIFF'S EXHIBIT

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To (Name)	GOHC (See Attached List)	Date	February 22, 1983
Division		Originating Dept	HS & EA
Location		Area	P2
Area		Subject	<u>Asbestos Reprints</u>
Copy to			

Attached is an addendum to the talk given by H. C. Lewin-
sohn at the GOHC/GSC meeting held in Danbury, February 7-9, 1983.

R³ Rankin

R. R. Rankin

RRR/pob
Attachment

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Criteria for the Diagnosis of Asbestosis and Considerations in the Attribution of Lung Cancer and Mesothelioma to Asbestos Exposure

Prepared by the Medical Advisory Panel* to the Asbestos International Association

Section 1 — Asbestosis

Definition

Asbestosis is a diffuse fibrosis of the parenchyma of the lung caused by exposure to respirable airborne asbestos fibres. The fibrosis is irreversible and in some persons progresses even after exposure has ceased.

Criteria for Diagnosis

1.1. History. There should be evidence of substantial occupational exposure (or substantial para-occupational exposure) to asbestos fibres.

1.2. Clinical Signs and Symptoms. Persistent basal inspiratory crepitations characteristic of interstitial pulmonary fibrosis may be heard but are not invariably present. Breathlessness and finger clubbing occur but are not specific signs in themselves.

1.2.1. Crepitations (Crackles). These are fine basal inspiratory crepitations, usually bilateral which occur late in inspiration and persist after coughing or hyperpnoea. They are characteristically heard with each inspiration and on each occasion present very much the same pattern of sound. They are not essential to the diagnosis any more than they are pathognomonic of the disease. However, when not accounted for by another cause and when heard on at least two occasions a few months apart, given a history of exposure and radiological evidence of dust disease, they do provide valuable confirmation of the diagnosis. In the presence of

* S. F. McCullagh, Chairman (Australia); G. Aresini (Italy); K. Browne (UK); B. Korsgaard (Denmark); J. Lepoutre (Belgium); M. Lesage (Canada); H. C. Lewinsohn (USA); F. Mansour (Lebanon); M. C. Mills (UK); W. R. Paul (USA); C. Raffaelli (France); W. J. Snithter (UK); R. B. K. Tucker (South Africa); R. Murray, Convenor (UK); C. Loison (France)

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equivocal radiological change, basal crepitations as here defined are a strong indication for the diagnosis of asbestosis.

1.2.2. Abnormal Breathlessness. This, occurring initially on exertion, is a symptom of asbestosis. There are, of course, many other causes of breathlessness and these must be excluded. In those under routine medical surveillance a provisional diagnosis would probably have been made before disabling dyspnoea occurs.

1.2.3. Clubbing. This is a sign seen in many lung and other diseases including asbestosis where it may be of late occurrence. It develops slowly but the rapid development of finger clubbing, particularly if painful, in a person with asbestosis suggests lung cancer.

1.2.4. Dry Cough and Ill-defined Chest Pain or Discomfort. These can occur in asbestosis, but infrequently, and then only late in the progression of the disease. They are not specific and of little diagnostic significance.

1.3. Radiological Aspects. Radiographic evidence of predominantly basal diffuse interstitial fibrosis is the characteristic change seen.

1.3.1. So that films are comparable they must be of good technical quality and of full size (approximately 350 mm x 430 mm and to include both costo-phrenic angles). Ideally, inspiration should be such as to have brought the diaphragm below the fifth rib anteriorly and the tenth rib posteriorly.

1.3.2. The recording of pulmonary changes on the radiograph follows the system used in the ILO Classification¹. This system describes irregular or linear opacities as follows:

- i) Small (s) — width up to about 1.5 mm.
- ii) Medium (t) — width over 1.5 mm and under 3 mm.
- iii) Large (u) — width over 3 mm and up to 10 mm.

The changes may be of such profusion as to obscure the normally clear margins of the bronchovascular structures. Small (p), medium (q), or rarely, large (r) rounded opacities may also be present. In advanced disease the sharpness of the cardiac and diaphragmatic borders are sometimes obscured.

1.3.3. Pleural changes are commonly present and are often the first radiological indicator of exposure to asbestos. Diffuse or localised pleural thickening or circumscribed pleural plaques, with or without calcification, may occur and need not be associated with parenchymal fibrosis. Transient pleural effusions have been reported. The pleural abnormalities can be sufficiently extensive to obscure the lung fields and may, in rare cases, lead to impairment of lung function.

1.3.4. In individual cases a narrative report by the reader of the radiograph as well as an interpretation of the relationship between the observed appearances and the occupational history is helpful.

1.3.5. Where possible comparison of the most recent film with earlier films is highly desirable.

¹ The ILO International Classification of Radiographs of Pneumoconiosis (1980) is designed to ensure international comparisons of radiological data. This classification is purely descriptive and was specifically designed for epidemiological purposes and not for evaluating an individual. Sets of films are obtainable from ILO Publications, International Labour Office, CH-1211, Geneva 22, Switzerland