American College of Chest Physicians

UNION CARBIDE CORPORATION OLD RIDGEBURY ROAD, DANBURY, CT 06817
Corporate Health, Safety and Environmental Affairs Department

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HCL-126

Raymond L.H. Murphy, Jr., M.D.
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Dear Dr. Murphy:

I have read the manuscript for the Asbestos Criteria document which you sent to me for comment. You will notice that I made some minor word changes and added a few comments in red ink.

My first comment is that it is inconsistent to refer to pleural disease when in fact pleural plaques and pleural thickening may not be associated with any symptoms, signs or physiologic defects. For a document of this nature where the importance of differentiating between pulmonary fibrosis (asbestosis) and pleural abnormalities is stressed, I would prefer to substitute the term "pleural abnormality" for "pleural disease". The British Industrial Injuries Advisory Council Report presented to Parliament in November 1982 entitled "Asbestos-Related Diseases without Asbestosis" (H.M.S.O., London Cmnd. 8750), classified the main abnormalities as shown in the attached copy of this document.

The second point which I would like to make concerns the lack of information concerning exposure, dose-response relationships, secular changes in the mining and industrial usage of asbestos and the comparative rarity of the full-blown syndrome in persons exposed during the past 20-30 years. There are many who believe that with improvements in dust control over the years the incidence of asbestosis has declined and the condition most frequently diagnosed today is a subclinical one with minimal radiographic lesions and very little, if any, disablement. I think that the attention of physicians should be drawn to this.

Walton (Ann occup hyg. 25:117-247, 1982) states that "dust concentrations in industry are not constant from moment to moment (or day to day) or from place to place...". Although he is referring to the problems encountered in dust sampling, the statement could equally well reflect the constant changes in industrial processes which need to be taken into account when documenting an exposure history. This is not purely of academic interest since Jones et al. (IARC Scientific Publications #30 - Biological effects of mineral fibers, Vol. 2, pp. 537-542) have shown that the progression of radiologic pleural abnormalities is more closely related to length of exposure and time since

first exposure, whereas progression of parenchymal changes is related to higher average and cumulative dust exposures. If dust levels have declined during the past twenty years then pleural abnormalities can be expected to occur more frequently than parenchymal changes on radiograpnic examination.

I should like to make a strong plea for a section to be added to the document indicating the importance of establishing occupational asbestos exposure in terms of jobs, industries, fiber variety, dust concentrations in fibers/c.c., date of first exposure, and cumulative exposure.

Finally, some discussion should be included on the effects of smoking. Does smoking hasten the appearance of radiologic changes? Is there evidence to substantiate the claims which have been made that it does? Some discussion on this point is required for the sake of completeness.

I hope that these few comments are of value to the Committee. I would be pleased to collaborate with you in any way to clarify some of these issues.

Yours sincerely,



Hilton C. Lewinsohn, M.D.

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