

August 20, 1963

Henry F. Howe, M. D., Secretary
Council on Occupational Health
American Medical Association
535 N. Dearborn Street
Chicago 10, Illinois

Dear Dr. Howe:

I have just read the August 1963 issue of the A. M. A. Archives of Environmental Health, and I am very concerned about the implications in the document on, "The Pneumoconioses". On page 131 there is the following statement:- "Free crystalline silica is potentially the most harmful dust. This seemingly ubiquitous substance is present in the form of quartz in rock mined with coal, in metal mining in general, in the clay used in potteries, in stone quarries, and in abrasives used for manufacture of a variety of industrial products, especially in the grinding of metal parts."

Many forms of artificial abrasives made with silicon carbide and aluminum oxide contain no free crystalline silica and only a few contain as much as one to two percent of free silica. Both the abrasive grains and the bonding material are considered to be inert non-toxic dusts by the Government Industrial Hygienists and they have set up a Maximum Acceptable Concentration of 50 million particles per cubic foot.

Obviously a dust concentration of this magnitude could not be attained if a reasonably, adequate exhaust system were used. It should be obvious that any workers who use the artificial abrasives - silicon carbide and aluminum oxide - and develop pneumoconiosis could get it only from the material being ground, such as from the sand ground off castings.

Undoubtedly you are acquainted with Dr. Gardner's experiments at Saranac Lake, N. Y., in the late 1920's, with CARBORUNDUM (silicon carbide). In the 1930's it was suggested by a number of doctors, including Dr. Oscar Sander, that more experiments be done to prove whether or not silicon carbide and aluminum oxide could produce pneumoconiosis. At that time I was medical co-advisor to the Grinding Wheel Institute and the Abrasive Grain Association with Dr. Karl Benedict of the Norton Company. Experiments were made by Dr. Paul Gross, at the Industrial Hygiene Foundation in Pittsburgh and the results were published by the A. M. A. Archives of Industrial Health in March 1959.

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Henry J. Lowe, M. D. (Cont'd)

In the document on Pneumoconiosis the statement that free crystalline silica is present in the artificial abrasives is incorrect. When various companies, using aluminum oxide or silicon carbide, are sued for pneumoconiosis I answer their questions by giving them the preceding information and send them a copy of the results of the experiments that were done by Dr. Gross.

Reprints of these experiments have been sent to Doctors Arthur Vorwald, George Wright and Oscar Sander and from personal communication with them I am sure they are well acquainted with the fact that silicon carbide and aluminum oxide contain very little, if any, free silica and therefore cannot produce silicosis or pneumoconiosis.

I believe there should be a corrected statement printed in the A. M. A. Archives of Environmental Health. Surely if this opinion is not corrected it will stimulate many invalid claims for compensation for alleged silicosis due to working with artificial abrasives.

I have been in contact with Dr. John Talbott, by telephone, and he has suggested that I write you directly, and send a copy to Dr. Katharine Boucot.

Very truly yours,

THE CARBORUNDUM COMPANY

CPE:emg

CC to Dr. Katharine Boucot,	3300 Henry Ave. Philadelphia 29, Pa.
Dr. John Talbott	535 N. Dearborn St., Chicago, Ill.
Dr. Arthur Vorwald	1401 Rivard St. Detroit 7, Mich.
Dr. Oscar A. Sander	710 N. Plankinton Ave., Milwaukee, Wis.
Dr. Earl Benedict	The Sarton Company, Worcester, Mass.
Dr. G. W. Wright	11311 Shaker Blvd., Cleveland 4, Ohio
Dr. C. C. Shaver	Niagara Peninsula Sanatorium St. Catharines, Ont.
Mr. Allan P. Wherry	Thomas Associates, Cleveland 15, Ohio
Mr. W. J. Ehlers	The Carborundum Company
Mr. F. L. Cuneo	The Carborundum Company

C. P. EDY, M.D.
Medical Director

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