



CC: G. M. Thomas  
I. A. Ruston  
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M. G. Gurnea

June 4, 1942

Mr. Herman Luft, Safety Engineer  
Department of Labor and Industries  
Olympia, Washington

Dear Mr. Luft:

After an extended absence from the city I find on my return your letter of May 19, and I regret that our reply is thus unavoidably delayed.

We are glad to respond to your inquiry about health and handling characteristics of Fiberglas materials. Although Fiberglas is a basic material that has been in use for more than 10 years, it is right and proper that anyone unfamiliar with it should ask questions of the kind that you have set forth, and you are entitled to all the pertinent data. For that reason this letter must be long.

We enclose a reprint of an article entitled "Fiberglas Health Hazard Investigation" which appeared in the January 1942 issue of INDUSTRIAL MEDICINE. The author is Dr. Walter J. Siebert of St. Louis. As indicated in the opening paragraphs, Dr. Siebert wrote the article to summarize an investigation made by him during June 1941 for St. Louis Local No. 1 of the Asbestos Workers Union. Dr. Siebert is pathologist and director of laboratories in five hospitals in the St. Louis area. Formerly he was assistant professor of pathology in the School of Medicine in Washington University. This article was abstracted in the February 1942 issue of INDUSTRIAL HYGIENE DIGEST. A reprint of the abstract is enclosed.

Among the points covered in Dr. Siebert's report of his investigation are the following:

Since 1934, manufacture of Fiberglas thermal and acoustical insulation has been centered in Newark, Ohio, where hundreds of employees have been continuously exposed to the material in all stages of manufacturing, fabricating, and packaging operations. On the basis of this experience covering millions of man hours of exposure, we have prepared

Exhibit A -- Fiberglas Standards P4.3.1 entitled "How Workmen Handle Fiberglas Thermal Insulating Materials." In addition, Fiberglas insulation has been supplied in large volume to dozens of equipment manufacturers in Ohio like Westinghouse in Mansfield, Frigidaire in Dayton, Newark Steel Company in Newark, as well as to scores of other manufacturers throughout the country.

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Diseases of the upper respiratory tract as well as any disease of this type caused by inhalation of any injurious dust are recognized as compensable diseases in Ohio, and in view of the extent and duration of exposure to Fiberglas in Ohio, we are sure you will attach significance to

Exhibit B -- Photostatic copy of letter dated June 17, 1941, from Mr. J. A. Shaw, Claims Referee of The Industrial Commission of Ohio to Dr. Walter J. Siebert. For your information, this letter is Exhibit No. 3 in Dr. Siebert's report. Mr. Shaw's letter contains the following statement:

"...we have never had a claim filed for a disease of the upper respiratory tract caused by the alleged inhalation of Fiberglass particles."

One phase of Dr. Siebert's investigation was to inquire of eye, ear, nose, and throat specialists in Newark, Ohio, whether they notice any unusual incidence of upper respiratory disorders among their private patients who are employed at Owens-Corning Fiberglas Corporation as compared with their patients who are employed elsewhere. (Approximately 25 per cent of the wage earners in Newark are Fiberglas employees.) Replies are as follows

Exhibit C -- Photostatic copy of letter dated June 17, 1941, from Dr. Clark B. Hatch to Dr. Siebert, containing this statement:

"My practice covers a cross section of all parts of Newark and I have never felt that, from an occupational standpoint, there was any larger percentage with respiratory infections among the employees of the above mentioned [Owens-Corning Fiberglas] corporation than from any other walk of life."

(This letter is Exhibit No. 44 in the Siebert Report.)

Exhibit D -- Photostatic copy of letter dated June 17, 1941, from Dr. John E. Hamricks to Dr. Siebert, containing the following statement:

"During these three years I have treated my share of Owens-Corning employees, I can safely say that I have noticed no unusual preponderance of head or throat infections among these people as compared to my other patients who are not employed there."

(This letter is Exhibit No. 45 in the Siebert Report.)

We believe you will be interested to know that Aetna Insurance Company underwrites various forms of group coverage extended to all Fiberglas employees. This protection is described in

Exhibit E -- Aetna Group Insurance booklet covering life, disability, sickness, and hospitalization benefits available to Fiberglas employees. All employees are so covered.

Concerning Actna's experience with the Fiberglass group, (now numbering nearly 8,000 employees), we respectfully direct your attention to

Exhibit F -- Photostatic copy of letter dated June 11, 1941, from Mr. John A. Hill, Toledo General Agent of Actna Life Insurance Company, to Mr. Edward C. Ames of Owens-Corning Fiberglass Corporation, containing these statements:

"The health of your employees has been better than average. This is evidenced by the fact that we now have in effect a 35% reduction in rate on both the Sickness and Hospitalization insurance carried by your employees. This is the result of nearly four full years exposure, and develops a rate lower than any similar industry that we have insured. In addition we have Hospitalization coverage which is developing a Loss Ratio, after over three years experience, far lower than almost any of the 200 industries we have insured in Ohio.

"As a further evidence, our Casualty Company carries, what is known as, Products Liability at an extremely low rate, and no claim has ever been presented, indicating, of course, that there is no hazard in the use of Fiberglass or any of its products.

"Although your compensation insurance is carried with the State, our Company does have the coverage on your new plant in Ashton, Rhode Island, and is writing this at a rate of approximately forty cents a hundred, which will indicate how safe we regard the risk to be - not only from an accident view point, but from an occupational hazard view point. In other words, from our own experience we do not feel that there is any different hazard than from any normal manufacturing operation, and we feel the hazard is much less than in the manufacture of Rockwool, Slagwool, Asbestos or any of the so-called 35% magnesia products.

Actna's appraisal of the lung hazards and the corresponding underwriting risk involved -- as compared with other materials used in the insulating trades -- is further detailed in

Exhibit G -- Multilithed copy of letter dated June 21, 1941, to Mr. Hill from Mr. Walter S. Paine, Manager of the Engineering and Inspection Department of the Actna Casualty and Surety Company, containing this statement:

"I believe that most articles covering occupational disease exposure definitely warn of the hazards of asbestosis growing out of the use of asbestos. Relative to the use of fiberglass, rock wool or slag wool, I have discussed this matter very thoroughly with our Medical Department insofar as it applies to the installation of glass wool and its relation to silicosis, and I know of no better answer to give you than their direct statement:

"We may definitely state that this is not possible, based upon the established fact that silicosis of which glass wool is composed will not produce silicosis or a similar condition."

Additional evidence that you may wish to consider is

Exhibit E -- Photostatic copy of a letter dated October 3, 1941, to Mr. Faxon from Mr. J. Denny Barrett, Manager, Casualty Department, Association of Casualty and Safety Executives, and attached list of member companies:

"In answer to your inquiry as to whether we have received any reports from our Member Companies of claims alleging the contraction of silicosis or similar lung disease from Fiberglas or glass wool as distinguished from mineral wool, a search of our records indicates that no such claim has been reported."

Typical of letters in our files from manufacturers using Fiberglas insulation is

Exhibit F -- Photostatic copy of letter dated May 19, 1941, from Mr. W. E. Baker, Works Manager of The Moore Corporation (range manufacturers), Joliet, Illinois, to A. C. Bremer Supply Company (Fiberglas marketer), St. Louis. Mr. Moore's letter contains this statement:

"We have used this material Fiberglas insulation now for approximately a year and believe it to be every bit as efficient as the various makes of rock wool and slag wool on the market today. Besides this, we think it has one great advantage of being a much cleaner insulation than the average run that you find, as it is almost entirely free of any kind of shot material and is practically dustless. This is to our advantage, as we have had some materials in our plant that made it necessary for our men to wear respirators while handling it. This material, however, is clean enough for us to eliminate the use of respirators in our present set-up."

For many years Fiberglas insulation has been used in Budd Streamlined trains. Of interest in this connection is

Exhibit G -- Photostatic copy of cover page and pages 1 and 5 of "Safe Practice Bulletin No. 2" in the Occupational Disease Prevention Series published in 1939 by the Pennsylvania Department of Labor and Industry. The author is Dr. E. E. Mallvain, Medical Director and Personnel Manager of Edward G. Budd Manufacturing Company. Entitled "Insulation in Stream-lined Trains" the Bulletin includes this statement on page 5:

"Fiberglas provides the qualities generally sought as an insulation product in stream-lined trains and in addition has proven safe for handling purposes by our workmen."

Fiberglas yarns made of textile glass fibers are being used by members of the medical profession for various humanitarian uses. One is described, for example, in

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Exhibit I — Photostatic copy of letter dated May 19, 1942, to W. R. Hannan, Owens-Corning Fiberglas Corporation, St. Louis, from Dr. Roy Philip Schels, St. Louis eye, ear, nose, and throat specialist.

We are informed that an article by Dr. Schels describing the use of Fiberglas yarns for surgical sutures will appear in the June 1942 issue of THE AMERICAN JOURNAL OF SURGERY.

Besides the use of Fiberglas yarns for surgical sutures, another example of a humanitarian use of Fiberglas is as a "tracer thread" in surgical sponges, described by Edward F. Lewis, M.D., in an article entitled "A Safe Surgical Sponge" on pages 1-3 of SURGERY, GYNECOLOGY AND OBSTETRICS, November, 1939, and discussed farther in another article by Dr. Lewis entitled "Mayble Gums as a Factor of Safety in Surgical Operations" on pages 38-40 of the January 1942 issue of the BULLETIN OF THE AMERICAN COLLEGE OF SURGEONS and in an article entitled "Radio-Opaque Thread — a Guide to the 'Lost' Sponge" by Dr. Lewis in the April 1942 issue of MODERN HOSPITAL.

In addition, tape woven of Fiberglas continuous filament is being supplied under Army specifications for use in medical field kits to filter blood plasma during transfusions made to reduce shock. This use is described in a current advertisement (reprint enclosed), which was approved by Army Medical officers before release. It is also described in the May 1942 issue of SURGICAL FUSIONS. We believe it is significant that Fiberglas yarns are used by the medical profession in connection with these applications and that they indicate there is nothing toxic in the material.

The evidence cited above rests on our experience in the manufacture and marketing of Fiberglas: Duration and extent of exposure sufficient to warrant generalizations, no validated claims for occupational disease attributable to Fiberglas as differentiated from other materials, favorable customer reaction, favorable reports from insurance underwriters, use of glass fiber products in surgery. We believe you will agree, however, that in any scientific discussion of the subject, this empirical evidence is significant, especially when it is supported by scientific data. For example:

Exhibit II — Annual Report of The Bureau Laboratory for the Study of Tuberculosis of the Edward L. Trudeau Foundation for the Year 1940, containing the following statement by Dr. Leroy V. Gardner:

"The apparent lack of pulmonary damage from exposure to glass wool dust is being demonstrated by an inhalation experiment. For over a year animals have now been exposed to as high a concentration of this material as could be maintained, with no serious effect upon their lungs. The dust has been produced by breaking into short lengths the finest textile glass that is made but none of the fibres that are floating in the air can be found in the lungs of exposed animals. Their tendency, unlike that of asbestos, to form felt-like masses upon any object with which they come in contact probably prevents their inhalation. Slight amounts of chronic inflammation, similar to those observed with other harmless dusts, have resulted from accumulated particulate debris. These very fine, non-fibrous particles are the by-product of the violent beating used to break up the material."

Exhibit E -- Reprint of "Researches of Niles Institute 1940-1941" in **ANNALS ENTOMOLOGICAL SOCIETY OF AMERICA**, April 1942, which contains the following reference to Dr. Gardner's work:

"L. V. Gardner, director, The Bureau Laboratory, has reported on the researches which the Foundation supports at his institution, saying in part:-- 'We have been studying the effect of inhaled glass wool. Apparently even the finest textile glass cut up as an atmospheric dust is not inhaled in appreciable concentrations and does not produce any dangerous effects upon the lung.'"

You may wish to have for consideration also the summary of evidence and findings based thereon which constitute

Exhibit F -- Multilithed copy of Recapitulation and Conclusions (pages 65-68) of the "Fiberglass Health Hazard Investigation" by Dr. Siebert, which is referred to above.

We enclose also

Exhibit G -- Brochure entitled "Health Aspects of Fiberglass Materials" which summarizes many of the exhibits referred to above.

We appreciate your inquiry and hope that these data will supply the answers to your questions.

Yours respectfully,

OWENS-CORNING FIBERGLAS CORPORATION

Assistant to the President

Edward C. Ames  
by

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