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INTERNAL CORRESPONDENCE

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UNION CARBIDE CORPORATION • 270 PARK AVENUE, NEW YORK, NEW YORK 10017

RECEIVED
APR 6 - 1970
UCC - CALIDRIA
KING CITY, CA.

(Name)
vision
cation

Mr. C. E. Metten
Chemicals & Plastics
2770 Leonis Blvd.
Los Angeles, Calif. 90058

bcc: M. B. VerNooy - TT
W. J. Fitzpatrick - LA
W. G. Farrell - LA
John Meyers - King City

opy to

Date: March 21, 1970

Originating Dept.: Medical Department

Answering letter date:

Subject: Toxicity of Calidria Asbestos

Asbestos has practically no acute toxicity regardless of its type or form. The harm associated with asbestos is from the fibrogenic properties of the inhaled dust. This usually is seen only after prolonged exposure measured in terms of 15-20 years although cases rarely will occur in less time.

Because of the rather unique structure characteristics of Calidria Asbestos, there was concern that it might be unusually fibrogenic and perhaps cause an acute asbestosis.

To test this possibility, Calidria Asbestos was injected into rats and rabbits intraperitoneally using a standard long fibre asbestos as a control. The results of this test showed Calidria Asbestos to be slightly more fibrogenic than long fibre asbestos but the difference was not so great as to suggest an unusual degree of hazard. From this I conclude that the same precautions to avoid breathing asbestos dust must be observed whether the dust be from Calidria Asbestos or from a standard long fibre form.

Some people believe there is an association between exposure to asbestos dust and the development of lung cancer and mesothelioma. There is no information regarding Calidria Asbestos in this respect as yet. It would be prudent to assume that Calidria Asbestos will behave like other asbestos in this regard.

C. U. Dernehl M.D.

C. U. Dernehl, M. D.
Associate Medical Director

CUD:dp

PLAINTIFF'S EXHIBIT
UC-4560

AU3158

Union Carbide Corporation
Mining and Metals Division
270 Park Avenue
New York, New York 10017

RECEIVED
FEB 9 1966
T. F. FRANGOS

February 8, 1966

Asbestos
Toxicology

Mr. Peter R. Cheston
Union Carbide Limited
8 Grafton Street
London, England

Dear Peter:

Your suggestion that we consider including "UK paper industry" comments in our General Sales Meeting is well taken -- and I plan to review the notes with Ian Sayers.

Apropos of your letter on toxicological studies relative to asbestos -- we have reviewed the two excerpts you sent us with Dr. Carl Dernehl. He counsels that the papers "do not by any means present incontrovertible proof nor do they profess to do so." Further: "Our position should remain that in United States experience there has been no increased incidence of lung cancer when the threshold limit has not been exceeded."

From past publications, we have also noted the references to organic contaminants, with the thought that proof of absence of polycyclic aromatics in Union Carbide asbestos might be useful. We are planning some extraction studies and analyses for 3,4-benzo(a)pyrene by techniques employed at South Charleston. We will let you know the results, probably in an appropriately written statement by Dr. Dernehl.

The matter of soft papers, facial and other tissues, has been a recurring subject with us. Primarily this is a question of skin sensitization. While the over-all statements by our Industrial Medicine and Toxicology people should suffice -- we have given thought to "patch tests," which, incidentally, cost appreciably to run. It would be meaningless to conduct such tests with paper containing UCC asbestos, since the other components of the furnish bear on the results. Hence we are considering patch tests using straight asbestos -- which, of course, would absolve only our product. The other components (including, as you know, a variety of organic compounds) of specific furnishes would have to be considered by the paper company involved. We shall let you know our plans.

Very truly yours,

A.E.Pufahl:dk

cc: H. F. Reichard
T. F. Frangos
R. F. Gray (Australia)

A-0315

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M. P. BALLMER
AUG 31 1967
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NIREF. 1415 TJH/MLF

BRUXELLES 6, 1 August, 1967
148, AVENUE LOUISE

RECEIVED
SEP 1 1967
T.F. FRANCIS

Mr. Frank Dexter
Union Carbide Corporation
Chemicals & Plastics Division
270 Park Avenue
New York, N. Y. 10017

Re: ASBESTOS TOXICOLOGY

Dear Frank:

During a recent conference on Physics and Chemistry of Asbestos Minerals at Oxford, England, I met with representatives of the group who are coordinating an analytical program for asbestos samples. These were:

Dr. V. TIMBRELL
Medical Research Council
Pneumoconiosis Research Unit
Llandough Hospital
Penarth, Glamorgan. U K

Dr. T.G. MORRIS
M.R.C. Llandough Hospital
Penarth, Glamorgan.

This meeting was to arrange for Union Carbide's cooperation in trace element analyses of standard samples.

Dr. Mumpton, who, incidentally, gave an exceptionally good and well received paper at the meeting, is bringing the samples back to Niagara Falls and is aware of the requirements of the group for analysis. Briefly, they would like to have all possible trace elements analyzed to the highest possible degree of accuracy.

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There are two samples of chrysotile asbestos, one of amosite and, I believe, two of crocidolite. Dr. Timbrell has sizable quantities - close to one ton each of these materials - which have been "thoroughly" blended. In the case of chrysotile he also has samples of the different types from which the standard sample mix was prepared. He asked if we could possibly analyze samples of these original components in order to see if any components were present which might be used as a key to the efficiency of their mixing and blending procedures. Dr. Mumpton agreed to determine the cost of these further analyses to see if we could justify also doing some of them.

We had a lengthy discussion with Dr. Timbrell and Dr. Morris and Dr. Mumpton can fill you in on the details. I believe it is fair to say that there are certainly many questions and problems still unanswered and realistically there is not much evidence yet as to the true "danger" of using asbestos.

I expect to be in New York during the week of August 14 and would like to talk to you more about this and other asbestos subjects.

Very truly yours,

Tom Hall

THOMAS J. HALL.

cc: Dr. C.U. Dernehl, M.D.
Mr. F. Frangos - N.Y.
Dr. F. Mumpton - Niagara Falls
Mr. L.D. Polderman - Office
Dr. A.E. Pufahl - New York
Mr. I.C. Sayers - London
Mr. R.G. Woolery - Niagara Falls

A03161

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