



THE DISCOVERY COMPANY

Calidria ASBESTOS

UNION CARBIDE CORPORATION

• MINING & METALS DIVISION

• P.O. BOX 579

• NIAGARA FALLS, N. Y. 14302

• TEL: 716-278-3376

April 29, 1975

Mr. Thomas F. Anderson
Designed Products Department
Dow Chemical, U.S.A.
Freeport, TX 77541

Dear Mr. Anderson:

This is the summary of our discussions with OSHA on medical examination requirements in accordance with your request to Mr. J. E. Walsh. As you may recall, at the SPI meeting in Washington we provided asbestos fiber count data taken during the sanding and grinding of various polyester-fiber glass objects containing small amounts of "Calidria" asbestos RG-244. The counts were made by the OSHA procedure, including as asbestos fibers all particles longer than 5 μ with an L/D ratio greater than 3 that could possibly be asbestos. It was also stated that many of the counted fibers were probably not free asbestos but we knew of no generally accepted analytical technique to prove this.

Although the dust counts reported were low, i.e., less than 0.4 fiber/cc, they were distinguishable from background. This left the question as to which employees in a shop that was fabricating objects from asbestos-containing polyester resin would be required to have medical examinations under current OSHA regulations. It was agreed that Union Carbide would try to obtain a clarification on this matter from OSHA.

Mr. Lewis Cox, Special Assistant to the Assistant Secretary, OSHA helped arrange meetings in Washington with Mr. A. Reis, Senior Representative from the Office of Standards Development and Mr. C. McClure, Chief Compliance Officer, OSHA. Mr. W. C. Thurber, Product Manager for "Calidria" Asbestos represented Union Carbide.

Mr. Reis stated that they now expect to publish the proposed changes to the standard in the Federal Register about mid-May. If public hearings are requested, as expected, this would move the promulgation of the final regulations to about the end of year. He was very careful

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not to provide any specifics but did say that the medical examination ambiguity had been cleared up in a way that should be satisfactory. The original NIOSH Criteria Document recommended a cutoff exposure level below which examinations are not required as one half of the allowable levels. It is our impression that something like this will be proposed for the revised regulations.

Mr. McClure stated that their definition of "exposure to asbestos" meant any exposure above the background level. On the advice of the Office of the Solicitor of Labor there is nothing they can do now to alter this. When the proposed new standards are published, he indicated he would consider putting out a guidance directive to their field people but made no firm commitment to do so.

It is clear that OSHA has decided that the present medical requirements are both unnecessary and present a very difficult compliance problem and are moving to make a change. Unfortunately, this will take a number of months. This leaves the basic question of whether the asbestos fiber level in the dust generated by the grinding of Derakane resin is really distinguishable from the background level. A reliable method to count asbestos fibers in the presence of other fibers is obviously needed. Actually, such a method will be important even when a cutoff limit is instituted since "operator judgment" is not the best way to distinguish nonasbestos fibers.

Union Carbide has done considerable work in this area and has found several promising techniques that will be described in the November 1975 issue of the ASTM Journal of Testing and Evaluation. In addition, one of our scientists, Dr. Kuldeep S. Chopra is chairman of a joint task group set up recently by Subgroups 11 and 15 of ASTM Committee E4. They will be studying methods to characterize, identify and count submicron particles. Dr. Don Beaman of Dow has consented to be part of this task group.

It appears that procedures to count asbestos fibers in resin dust may be part of a broader analytical problem of common interest. If so, it may be useful to look at the problem cooperatively. Such cooperation could take the form of a discussion of possible analytical techniques, collection of air samples at an appropriate location, and analysis of selected samples by both laboratories. Hopefully, in the next few months, we can come up with a much better definition of the true asbestos fiber counts for this operation. If this is of interest to you, please let us know.

On the subject of asbestos and health there is another important matter that needs to be discussed. Very recently we became aware of the attached letter that appears to be in use by the Derakane technical service people. Unfortunately, it attributes to Union Carbide the statement that "Calidria" Asbestos can be considered as an innocuous nuisance dust.

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This seems to have been misconstrued from the paper that Mr. Myers presented at the NACE meeting in Rochester. It is important to make it clear that Union Carbide has not made such a statement and in fact is in disagreement with it.

As you are well aware, asbestos related diseases are currently a very emotional and controversial subject. The attached paper, Asbestos and Health, published by the Asbestos Information Association/North America, gives a good, up-to-date summary of the consensus position of a large segment of the scientific community working in this area.

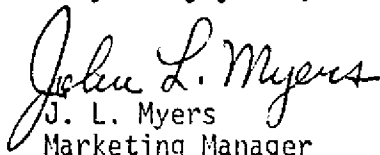
There is substantial evidence of graded toxicological effects among different types of asbestos in the order of crocidolite, amosite, chrysotile, anthophyllite. The British Regulations recognize this in setting an allowable limit for crocidolite that is lower by a factor of 10 than that of the other types of asbestos and requiring special permission to handle this material. Chrysotile, like most industrial raw materials does present hazards at certain exposure levels. It is covered by the OSHA asbestos regulations and therefore cannot be classified with the nuisance dusts.

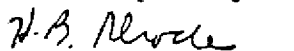
It is true that any distinction as to asbestos type has generally been ignored by the public press when discussing the hazards of asbestos. Of similar interest has been the tendency to extrapolate the effects of high exposure in industrial and quasi-industrial situations that usually occurred many years ago to predict hazards to the work force or to the general public today. The combination of these two factors has been an important factor in the present emotional publicity and feeling about asbestos.

In summary, we feel that your letter of October 16, 1974 is potentially misleading and its use should be discontinued. A draft of a suggested replacement correcting the statements erroneously attributed to Union Carbide is attached. It is strongly recommended and requested that this letter be sent to anyone who received your original letter.

In addition to this, we will be glad to supply copies of the Asbestos and Health publication and/or the more complete brochure, "Calidria" Asbestos RG-244, Health and OSHA Information, February 1, 1975, which you received in Washington. As in the past, we will also be happy to discuss the health question with any of your customers.

Very truly yours,


J. L. Myers
Marketing Manager


H. B. Rhodes
Technology Manager

cc: Mr. J. E. Walsh

bcc: K. S. Chopra
J. L. Myers ✓
J. V. Murray
R. Simon
E. Shallow
W. C. Thurber
V. J. Zupa

Attachment
/ds

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DOW CHEMICAL U.S.A.

October 16, 1974

TEXAS DIVISION
FREEPORT, TEXAS 77541

Resin Specialists

cc: E. T. Shallow
D. J. Najvar

THE USE OF ASBESTOS AS A THIXOTROPE IN DERAKANE® APPLICATIONS

Many of our customers have expressed concern as to whether the various regulatory agencies would continue to permit the use of asbestos as a viscosity modifier. A paper was recently presented at the Northeast Regional Conference of NACE by J. Myers, Union Carbide, dealing with the carcinogenic aspects of asbestos. Apparently there are four crystalline structures which are common to asbestos. Of the four, three are proven bad actors whereas the fourth (which they claim is the Calidria type) is much more innocuous.

Union Carbide claims they have sufficient toxicological data that places Calidria® in the nuisance dust category and distinctly separates it from emotional generalizations associated with generic asbestos. They have indicated that they will cooperate to any extent and would appreciate greatly if we would refer any requests for this type of information directly to them. A contact address is as follows:

Union Carbide Corporation
P.O. Box 579
4625 Royal Avenue
Niagara Falls, N.Y. 14302
Attn: Calidria Asbestos

Derakane Technical Service
Designed Products Dept.
Resins TS&D, B-1603

ldm

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AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

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THE USE OF CALIDRIA RG-244 ASBESTOS AS A
THIXOTROPE IN DERAKANE[®] APPLICATIONS

Many of our customers have expressed concern as to whether the various regulatory agencies would continue to permit the use of asbestos as a viscosity modifier. The use of asbestos in this application is not prohibited and there is no indication of such a restriction. RG-244 is chrysotile asbestos and many researchers agree that chrysotile seems to be less harmful to health than other varieties of asbestos, namely the amphiboles, which have different crystalline structures and physical properties.

Union Carbide Corporation, the producer of RG-244, has amassed air sampling data which demonstrate that RG-244 can be used in complete compliance with Federal government standards and regulations. We have a supply of a Union Carbide brochure, "Calidria" Asbestos RG-244, Health and OSHA Information, February 1, 1975, which can be provided to your customers. Union Carbide will cooperate fully in this matter and would appreciate the opportunity to discuss asbestos safety and health with our customers. Requests should be referred to:

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