

UNION CARBIDE CORPORATION
MINING AND METALS DIVISION
270 PARK AVENUE, NEW YORK, N. Y. 10017

JAMES W. RAWLINGS
VICE-PRESIDENT

March 10, 1972

Reichhold Chemical Industries, Inc.
701 - 707 Woodward Heights Blvd.
Ferndale, Michigan 48220

Attention: Mr. R. C. Sulick, Technical Director

Dear Sirs:

Many users of asbestos have become justifiably uneasy about recent federal regulations and proposed regulations pertaining to the use of asbestos products. Unfortunately, the publicity given to this governmental activity has tended to be of a sensational nature and has done little to place the question of asbestos toxicology in logical perspective. I take this opportunity, therefore, to state our firm belief that Union Carbide Corporation can comply with the regulations now applicable to our asbestos operations and with all reasonably anticipated additional regulations. Moreover, we believe that our RG-244 customers can, without undue burden, comply with these regulations as they apply to their operations. In this regard, it is our belief that if your facilities are ventilated to provide the protection required under present regulations against styrene fumes and amorphous silica dust, that you will also meet the standards established for asbestos.

With regard to the toxicity of asbestos, it is important to note that asbestosis and statistical excess occurrences of bronchogenic carcinoma have occurred only in connection with massive long term exposures to asbestos dust. The risk of this type of exposure is usually in asbestos mines and mills and in manufacturing operations such as floor tile plants where asbestos usage may vary from 15,000 to 30,000 tons per year. The risk of long term massive exposure is not typical of operations utilizing RG-244. As you are well aware, RG-244 is used in relatively small quantities and is introduced as a small fractional addition to a strong binder resin on an intermittent basis.

At the present time, regulations pertaining to asbestos exposure are in effect under the Occupational Safety and Health Act. In addition, proposed permanent standards under this Act were published on January 12, 1972 and are now under review. Also, proposed regulations concerning asbestos emissions to the atmosphere under the Federal Clean Air Act are under review. The ultimate scope and content of the regulations and standards under review should be determined by mid-year. At that time, we will be prepared to provide compliance information and assistance to our customers relative to newly adopted regulations.

A 14124

It is clear that the main thrust of the OSHA standards will be a limitation on exposure to airborne concentrations of various substances including amorphous silica, styrene and asbestos. Under the OSHA regulations now in effect, the basic asbestos exposure limit for any employee is 5 fibers per milliliter on an 8 hour time weighted average. This limit is known as a threshold limit value, or TLV. The present TLV for amorphous silica is 20 million particles per cubic foot, or 80 milligrams of SiO_2 per cubic meter with the weight usually limiting. Also, TLVs have been established for many other substances, all designated as "air contaminants", such as styrene, mica, talc and coal dust. The present OSHA regulations applicable to these contaminants indicate engineering methods should be utilized to obtain dust or fume control to the prescribed level where this is feasible. However, respirators can be used to control exposure. The OSHA rules now applicable to asbestos may be summarized as follows:

Airborne Concentration (1)

<u>8 Hour Exposure (2)</u>	<u>15 Minute Exposure (3)</u>	<u>Required Mask Type</u>	<u>Typical Mask (4)</u>
5 max.	10 max.	None required	--
25 max.	50 max.	U.S. Bureau of Mines Schedule 21B. Negative pressure on breathing. Covers nose and mouth.	Willson Model 1009 with R-520 Filter and M-S-A No. 86432 with Type H, Ultra Filter and others
250 max.	500 max.	U.S. Bureau of Mines Schedule 21B Powered filter positive pressure.	Personal Environment Systems, Inc. Hood 330 or 351 with 1900 Series filter
Over 250	--	U.S. Bureau of Mines Schedule 19B Type C positive pressure, air supplied.	Willson GA2H M-S-A Lead-Foe and others.

- (1) Fibers per milliliter greater than 5 microns in length, as determined by the membrane filter method at 400-450X magnification (4 millimeter objective) phase contrast illumination.
- (2) 8-Hour time weighted average.
- (3) 15 Minutes in an hour for up to 5 hours in an 8-hour day.
- (4) Not a complete list, but a list will be sent upon request.

A 14125

March 10, 1972

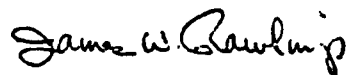
Experiments which we recently conducted indicate that the TLVs for both asbestos and amorphous silica may be exceeded during the introduction of the material into unventilated resin mixing tanks. The range of readings for asbestos and amorphous silica during the mixing operation were, respectively, 1.4 to 11.5 fibers per milliliter (average 5.0) and 24.0 million to 39.0 million particles of silica per cubic foot (average 30 million.) Other readings for asbestos fibers were as follows:

<u>Operation</u>	<u>% Asbestos in Material</u>	<u>Fiber Count Range per ML</u>	<u>Avg. Fiber Count per ML</u>
Spraying polyester resin in styrene with chopped fiber glass - boat hull and shower stall fabrication	0.4 to 0.5	0.8 to 1.4	1.12
Hand sanding polyester furniture	0.05	<0.1	<0.1
Power sanding boat hull	0.4	2.1 to 3.0	2.5

We, of course, recommend that you have your own operations surveyed by a qualified industrial hygienist to determine existing dust and fume levels. In this regard, we once again state our firm belief that if your facilities are ventilated to provide the required protection from dust and fume hazards for silica and styrene, that you will also meet the standards for asbestos.

The information set forth above is certainly not, and was not intended to be, an exhaustive analysis of present or proposed regulations and compliance procedures. We are willing, however, to meet with representatives of your company for the purpose of examining the presently applicable regulations and compliance procedures in detail.

Very truly yours,



James W. Rawlings

JWR/es

A 14126

UNION CARBIDE CORPORATION

MINING AND METALS DIVISION

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A 14123

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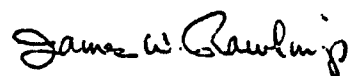
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Very truly yours,



James W. Rawlings

JWR/es

A 14129

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FEB - 1 1982

UNION CARBIDE
LONG CITY, CA.

MINUTES OF THE MEETING TO DEVELOP
WORK PRACTICES FOR THE USE OF
ASBESTOS IN THE DRILLING INDUSTRY
HELD JANUARY 25, 1982

A meeting to develop work practices for the use of asbestos in the drilling industry was held on Monday, January 25, 1982, at 9:00 A.M., in the Cortez Room at the Hilton Hotel, Tulsa, Oklahoma.

The following representatives of the companies set opposite their respective names were present:

<u>Name</u>	<u>Company</u>
B. J. Pigg	Asbestos Information Association, N.A.
K. N. Campbell	Montello, Inc.
John L. Myers	Union Carbide Corp.
F. J. Shell	Phillips Petroleum
Steven Kuhn	Johns-Manville
Harold Hopkins	Noble Drilling Corp.
W. J. Woodruff	Phillips Petroleum
A. J. Johnson	Montello, Inc.
Charles Butler Ammann	Gable, Gotwals, Rubin, Fox, Johnson & Baker

Mr. Pigg acted as Chairman of the meeting and appointed Mr. Ammann to act as Secretary of the meeting.

After a short introductory statement, Mr. Pigg called the meeting to order and then recognized Mr. Campbell who delivered the opening comments and outlined the purpose for the meeting. After describing the complexity and variety of the issues associated with the use of asbestos, Mr. Campbell then stated that the purpose of the meeting was to develop and propose recommended work practices and guidelines for using asbestos products in the drilling fluids industry.

A14257

The Chairman then asked Mr. Ammann to identify himself and to relate the particular reason for his presence at the meeting. Mr. Ammann, an attorney, was asked to join the meeting for the purpose of monitoring the discussions and proceedings of the meeting to assure the participants' activities were directed solely to the stated purpose of the meeting and not to any matter which could be construed as anti-competitive or a violation of the anti-trust laws. After providing an overview of the types of practices prohibited by the anti-trust laws, Mr. Ammann further apprised the group of specific areas and examples of discussions which might be construed to violate such laws. The group acknowledged its need to avoid and did avoid any discussion or activity which might be deemed anti-competitive and/or a violation of the anti-trust laws.

The Chairman next recited the events and developments which have occurred concerning the desirability of establishing acceptable work practices for the use of asbestos in the drilling fluids industry, and related a perceived willingness on the part of regulatory agencies to at least consider work practices which are recommended by the industry. Work practices which have been accepted in other industry segments were cited as examples. Furthermore, the Chairman stated that the Asbestos Information Association, N.A. has received favorable indications from regulatory sources regarding the hoped-for acceptance of proposed work practices for construction and non-fixed worksites.

At the conclusion of the Chairman's statements, each representative was provided an opportunity to explain his respective company's interest at the meeting, and, where appropriate, to report the progress such company has made in promoting or developing recommended work practices for the use of asbestos in the drilling mud industry.

From the discussion described above, the meeting proceeded to the development of a final draft of recommended work practices for using asbestos in drilling muds. The Chairman furnished each of the members of the group a copy of the type-written working draft. The group considered, and eventually agreed upon the language to be employed in a booklet containing the recommended work practices.

The Chairman noted the changes made by the group to the language contained in the working draft and assumed the responsibility of incorporating the revisions and producing the draft in final form for re-submission to the group.

At this point, the Chairman outlined a plan for follow-up action to the day's proceedings and asked for final comments from members of the group regarding the same. Afterwards, the Secretary announced that he would prepare minutes of the meeting and furnish each member of the group with a copy.

The meeting was adjourned at 3:30 P.M.



Charles Butler Ammann
Secretary of the Meeting