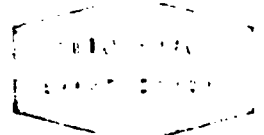


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THE DISCOVERY COMPANY



UNION CARBIDE CORPORATION • MINING & METALS DIVISION • P.O. BOX 579 • NIAGARA FALLS, N. Y. 14302 • TEL: 716-278-3376

April 2, 1974



Mr. F. H. Zimmerman
National Gypsum Company
325 Delaware Avenue
Buffalo, NY 14202

Dear Frank:

The report of our meeting with Dr. Selikoff which we discussed this morning is attached. I don't see any reason you can't discuss it with Ed Fenner and I also agree that any sort of general distribution via the AIA/NA is probably not wise.

Best regards,

H.B. Rhodes

HBR/cam
Attachment

Mining and Metals Division
Niagara Falls, NY 14302
April 2, 1974

M E M O R A N D U M

VISIT AT MT. SINAI HOSPITAL, DEPARTMENT OF COMMUNITY MEDICINE
TO DISCUSS ASBESTOS EXPOSURES OF TAPE JOINT WORKERS
MARCH 29, 1974

Those Present:

For Mt. Sinai:

Dr. Irving J. Selikoff
Dr. Arthur N. Rohl

For AIA/NA:

Mr. Frank Zimmerman (National Gypsum)
Mr. Joe Volk (National Gypsum, Ind. Hygiene)
Dr. H.B. Rhodes (Union Carbide)

The meeting lasted about 1½ hours followed by a short tour of their facilities. It was a pleasant low-key discussion. We mainly listened and asked leading questions.

Mt. Sinai Facilities

Their facilities, although quite crowded and cluttered due to an impending move to new quarters, contain an impressive array of new sophisticated equipment. They are set up to obtain the following information on any chosen particle in a field:

1. Electron micrograph photo.
2. X-ray diffraction pattern-(crystal structure)
3. Chemical analysis (electron probe)?
4. Scanning E.M. photograph.

The procedure is rapid and routine so it can be applied to large numbers of particles.

Studies of Tape Joint Workers

Dr. Rohl has visited about 30 work sites and plans to cover about 20 more. They are collecting mainly 20 minute samples in the breathing zone of men sanding. Some background samples in the areas being sanded are also being obtained.

Dust counts (breathing zone) ranged from 1-20 fibers. About 40% were in the 1-5 range, 40% in the 5-10 range, and 20% were over 10 but less than 20. One count obtained during wet-out of a dry mix gave the very high figure of 59 fibers/cc.

The counts were made by the regular OSHA procedure. Dr. Rohl insisted that they could tell the difference between a mica flake and asbestos and that only true fibers were counted. There does not seem to be any reason to doubt the validity of their counts.

About 50 X-rays of tape joint workers have been examined so far. Dr. Selikoff reserves the right to change his opinion when a larger sample has been studied but feels he has enough to arrive at the following assessment of the problem:

1. About the same percentage of positive findings (fibrosis) occurs as was found previously with insulation workers.
2. Generally the lung involvement is less severe than with insulation workers.

The point was made that the counts represented ceiling values for a sanding operation that generally lasted less than two hours per working day. This meant that a good majority of the exposures measured met the present OSHA standards and roughly half met the 1976 standards.

They felt that it would be too confusing to attempt to estimate TWA values. It was also not appropriate for them to get involved with statements regarding administrative work practices in the industry. As will be discussed later, they also do not feel that the current OSHA Standards have sufficient validity to be worth considering so there was really no reason to look at TWA's.

The point was also made that the tape joint workers with a long history in the business have been subjected to a number of years of regular high exposures while wetting out dry-mix compound. The x-ray data thus represents a combination of this exposure with considerably lower exposures during sanding.

Dr. Selikoff agreed that this was a problem but did not see any way to sort out the exposures. They are apparently not going to worry about it in their presentation of the data.

Work Practices

Dr. Selikoff made a strong push for work practices on the basis that there is no practical way to monitor the thousands of construction sites throughout the country. Work practices in his mind should control the dust levels to zero or very close to it, not merely meet the allowable TWA.

Dr. Rohl was asked what recommendations he would make for work practices on the basis of his field testing experience. Dr. Selikoff immediately stated that they did not have the background to make any recommendations beyond that of controlling the dust at its source, i.e. remove the asbestos from the mud. He stated that one manufacturer had told them they were going to do this and seemed to be under the impression that it did not present any serious technical problems. The function of asbestos in the mud was explained together with the very real technical problems in finding a replacement that would give a mud with competitive performance. If it were easy it would have already been done.

We mentioned the use of respirators to control exposure during sanding. Dr. Selikoff felt that respirators did a reasonable job and did not seem opposed to this approach. He also indicated that if it should be adopted and education program through the unions might be practical.

Silica Dust During Sanding

Dr. Rohl has analyzed the dust samples collected for silica and in at least some cases has found quite high levels. They do not seem to be particularly alarmed over this finding but do plan to look into it further. Some definite statement may be expected in about 6 months.

Acceptable TWA Limits

Dr. Selikoff was most emphatic that "The chance that the two fiber limit will survive in the new regulations is remote". He states that there is lots of evidence to show it is too high and nothing to show that it is adequate even to protect against asbestosis.

This position merely reiterates other public statements he has made. The need for AIA/NA to be prepared with their own documented position is obvious and well-known.

Prohibition of Smoking

Frank Zimmerman asked whether the evidence still supported a regulation of "no smoking" in areas where workers are exposed to air-borne asbestos fibers. Dr. Selifoff is strongly in favor of this position and will supply backup evidence if requested.

H.B. Rhodes
March 29, 1974

Blind Notes to Mr. Thurber and Mr. Myers

1. Frank Zimmerman mentioned that one the biggest problems with the removal of asbestos has to do with can stability in cold weather. Without asbestos there is a pronounced tendency for an inch or so of water to collect at the top of the can. This is very difficult to stir back in.

2. Much of Dr. Rohl's test work appeared to be with United States Gypsum muds (ready mix) in the New York area. I was unable to get any confirmation but it is either they or National Gypsums' Matteson IL. plant that told Dr. Selikoff about the asbestos-free mud. I have asked Mr. Byrne to have Mr. Norris talk about the subject again with United States Gypsum at an appropriate time.