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UNION CARBIDE **INTERNAL CORRESPONDENCE**

MINING AND METALS DIVISION • P. O. BOX 579, NIAGARA FALLS, NEW YORK 14302

To (Name) Mr. W. C. Thurber
Division UCC Metals Division
Location 38th Floor
270 Park Avenue
New York, NY 10017

Date April 8, 1975

Originating Dept. "Calidria" Asbestos

Answering letter date

Copy to Messrs. R. E. Byrne, Jr.
J. L. Myers
File

Subject Backup Information - Marks
Bill Discussion

The information package we discussed is attached. It is intended to answer the questions raised by Drs. Selikoff and Wright and to give you a comprehensive picture of the facts as we have them. Our available sanding and grinding data have also been added. When you have had a chance to review this, let us discuss what parts of it we may want to transmit to Senator Marks in writing.

As the medical experts become involved, it is important to keep in mind that all of our tests are based on OSHA fiber counts. All particles which meet the L/D >3 and L >5μ criteria which, in the judgment of an experienced counter, could possibly be asbestos were counted as such. There is good evidence but not proof that many but not necessarily all of the particles reported as asbestos are glass chips or other extraneous "fibrous" particles. We can argue that in many cases the counts reported are too high but our supporting evidence at this time is a little weak to argue that they are generally zero. As you also know, we did not pursue the EM work and look for fibers shorter than 5μ and resin particles with fibers sticking out. Our case is going to have to stand or fall on the OSHA procedure.

Turning to specifics, each of the four tables submitted previously has been expanded to include area and background sample results. Some data on the spraying of gel coats containing no asbestos have also been added. Unfortunately, the area type samples were generally obtained to provide exposure levels outside the "active" area to facilitate TWA estimates or to check against extraneous fibers being counted as asbestos. They usually shed little light on the duration of dust in the area. My own opinion is that we could possibly select some that are helpful but the total group adds little and detracts from clarity.

Supplemental details for each set of tests are provided. Unfortunately, once past the wall and ceiling texture data, each test sequence was enough different to require separate treatment. This information is presented in approximately the following format:

1. Application details - commercial or simulated, and type of use.

2. Spraying details - gun type and how operated plus comments on occupational and environmental exposure.

3. Finishing details - How the particular article is finished, i.e., sanded, ground or not abraded. Our data from field and laboratory tests is introduced as part of Table III on polyesters. We may want to put this together as a separate presentation.

4. Long-term exposure.

The last item, long-term exposure, is easy to discuss but hard to define quantitatively. The approach taken is that the sanding and grinding data remove a substantial depth of material in a very short time. If the total fibers found is averaged over several years, the level should be indistinguishable from background.

Overall, the discussion addresses all of the points you raised except the question of droplet size and persistence. With so many different liquids and spray types, I do not know how to get a handle on this quickly but will keep looking.

We are awaiting word from Al Harvey on their sanding data. They should be of some help on the wear question.

The information from the AIA/NA on the Yale case is also enclosed. This looks very much like the situation in California that was reported in great detail at the Industrial Hygiene conference in Miami last year. Asbestos is mixed with enough water to make a thick paste and it is sprayed onto a ceiling. The water evaporates, leaving a mat of essentially pure asbestos without any binder. The California people had great difficulty finding any fiber counts above background while Yale reports 18 fibers/cc. If you take an unbound asbestos mat and rub it hard enough, there is no reason to disbelieve that a count this high could be obtained. The obvious point is that this is the extreme case of unbound asbestos and is just not relevant to the situation we are considering.

I will let you know right away if any new information turns up.

Harry

H. B. Rhodes

HBR:cjb
Attachments