REPORT OF CALL

cc for K. S. Chopra
B. L. Ingalls
T. P. Norris
W. C. Thurber
J. E. Walsh
KC-File
NF-File

Caldria ASBESTOS

UNION CARBIDE CORPORATION
P.O. Box 579 Niagara Falls, N.Y. 14302

PLAINTIFF'S EXHIBIT
UC-278

By H. B. Rhodes
Date 3/11/75

Full Name U.S. Army Corps of Engineers Address Champaign, IL Mfrs. of	Interviewed Mr. Al Beitelman (TELECON) 217-352-6511, Ext. 421

BACKGROUND

The Steel Structures Painting Council has a detailed specification for an epoxy coal-tar polyamide maintenance coating, SS-16-68-T, which lists Avibest C and Bentone-38 as acceptable gelling agents. The wording is such that RG-244 can also qualify and has been used with some success at Standard Paint and Varnish. We are currently working on a viscosity drift problem, however, that has cropped up at Southern Imperial Coatings and they are not using RG-244 now.

Recently, JEW called on Mr. Fred Kinsler, a former SPV technical director, who is now with a new firm, Bywater Coatings. Mr. Kinsler stated that the Army Corps of Engineers has a very similar specification, C-200, except that the asbestos gelling agent has been dropped from the June 1974 revision of the specifications. JEW located the proper contact, Mr. Al Beitelman, and requested that we talk with them re getting our product back on the accepted list. Mr. Kinsler indicated that most of the market for this product is under the C-200 spec.

The writer contacted Mr. Beitelman by phone. He was well aware of RG-144 and RG-244 and had worked with RG-144 in a zinc-rich primer. It had not been acceptable there due to wicking in the very thin, i.e., 1-2 mil coat, typical of primers, and a viscosity drift.

Mr. Beitelman also thought that the asbestos had been removed by his predecessor in the last revision of C-200 due to toxicology, particularly with regard to state regulations banning asbestos spraying. He agreed to look at the RG-244 and asked for a recommended substitution level. Also, he was receptive to looking at a commercially prepared sample.

I called Mr. Kinsler to get his recommended level and to verify that he would supply a sample (he will). His recommended level of 15 lbs./100 gallons is the same as the formulation shows for Bentone 38. Based on our data with the S.I.C. blend, this looks much too high.

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MAR 24 1975

Published by AsbestosClaims.Law
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U.S. Army
Corps of Engineers
Champaign, IL

When I called Mr. Beitelman 15 minutes later to relay the above information, he quoted me the Illinois regulations:

> 301. "The spraying of asbestos-containing material is prohibited after March 31, 1972."

He took the position that with this regulation on the books, the Corps of Engineers would not allow asbestos in their specifications. He also commented that other states had or were planning to enact similar legislation, but agreed to go ahead and look at the technical aspects of the problem anyway. It was left at that.

Unfortunately, I did not have the regulations at hand because spraying is defined as shown below and the maintenance coating under consideration is clearly not covered:

> Spraying: The pneumatic application of material used for fireproofing and insulation.

While this provides an anwer for Illinois, we still must contend with:

New York State

> "Section 196.2 Prohibition. No person shall engage in or allow surface coating by the spraying of asbestos or asbestos-containing materials."

California

> Chapter 10.3. Spraying of Asbestos
>
> 25910. No person, on or after July 1, 1975, shall cause or permit the spraying of any substance containing more than one-half of 1 percent asbestos in or upon a building or other structure during its construction, alteration, or repair. No person, on or after July 1, 1976, shall cause or permit the spraying of any substance containing any amount of asbestos in or upon a building or other structure during its construction, alteration, or repair.
>
> Cold process cutback asphalt roof coatings shall be exempted from the provisions of this chapter.
>
> 25911. Any violation of this chapter shall be a misdemeanor.

Minnesota

Powdered Asbestos

325.244 Ban; Penalty

Subdivision 1. No person, corporation, parternership, joint venture, firm or association shall use, sell, deliver or receive, or contract to use, sell, deliver or receive powdered asbestos, whether in its powdered form or mixed with any other substance, and to be applied with a pressure sprayer, or in its molded form if asbestos dust will emanate from it due to handling, mixing or cutting, for purposes of constructing, remodeling or improving any building structure in this state.

Subdivision 2. Any violation of the provisions of subdivision 1 shall constitute a misdemeanor.

Indiana

A bill prohibiting the spraying of asbestos has been introduced in the current 1975 legislative session.

As you are all aware, the AIA/NA has submitted spraying data to the state of California and a strong effort is being made to have the law amended. No move has been made at the other three states.

For the immediate future, I do not see much hope in getting Mr. Beitelman to change his mind, although it may be a good first step to explain the Illinois regulation to him. It seems best to concentrate on getting as much as we can from them on defining and, hopefully, solving the technical problem. We should also take steps to get some input into the Indiana legislation.

RECOMMENDED ACTION

TPN Visit with Beitelman sometime during the first two weeks in April to asses the situation and check on progress. If appropriate, show him the facts re the Illinois regulation.

HBR Send along the samples from Fred Kinsler as soon as they arrive.

WCT & HBR Develop strategy to make approach to Indiana.

Typed 3/19/75
cjb

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Champaign, IL

Added note to: WCT, JLM, REB, KSC, BLI

This addendum is intended to bring all of you up to date on the current situation and to solicit comments and suggestions re priorities. The problem described here is really only the tip of the iceberg and sooner or later we are going to have to come to grips with the basic problem of state spraying regulations. For example, I doubt very much if Reichhold would be interested in RG-244 if they were aware of the New York and California regulations.

With all the clarity of crystal-clear hindsight, if the data had been available last fall we could, in all probability, have gotten out of trouble in California. We now have data, obtained largely by UCC with some help from Flintkote, which support our position but definitely do not put our best foot forward. In essence, the data now available show fiber counts that are generally several tenths of a fiber/cc, i.e., very low but not zero. There are also a couple as high as 1.5-1.6 fibers/cc. These counts were made with the OSHA technique with all particles longer than 5μ and L/D >3, which were obviously not asbestos, excluded. It is our technical opinion that in all but one of the samples the fibers counted as asbestos are not asbestos but we could not be sure. Therefore, they had to be included. There is also a grey area in that some of the particles excluded were probably fibers covered with resin.

Considerable effort was spent last year in looking at these spraying samples with more sophisticated techniques to try to define which particles were really asbestos fibers. A staining technique, which may be applicable to membrane filters, was discovered but was not developed into a proven analytical procedure. The main difficulty was that the regulation NIOSH media to dissolve the filter removed the stain. The only media we could make work with the stain was also very fluid and tended to move the particles on the filter. This approach can probably be refined to an acceptable procedure but a substantial amount of laboratory work would be required.

Even with the known shortcomings, the staining technique was applied to the spraying samples collected for the California presentation. Almost invariably essentially zero counts resulted. A serious difficulty developed, however, in that we almost always found a very substantial drop in the non-asbestos fiber count as compared to the results from the regular NIOSH procedure. There is considerable independent evidence that the type of handling that these filters received will not dislodge significant quantities of asbestos fiber. On this basis, the results should be valid, i.e., the non-asbestos particles were not firmly attached and dropped off in handling.

On the other hand, we could observe that the low-viscosity clearing fluid did move all types of particles on the surface of the filter. This tended to lower counts somewhat but not to the extent observed with the non-asbestos particles. In my opinion, this staining procedure gives valid, semi-quantitative results but we were not in a position to support this opinion with data. For this reason, the staining data were not mentioned in the California presentation.

At the same time an attempt was made to use the new SEM to count fiber and to distinguish between asbestos and nonasbestos particles. A method was set up to scan 100 fields at 400X in a manner very analogous to the optical technique. When particles occurred, they could be examined at 1200X. Unfortunately, the Millipore filter seems to be made up of cellulose fibers that look very much like asbestos under this type of viewing. Trying to spot the asbestos was like looking for a needle, or more aptly, a straw in a haystack. There are several published techniques using acetone to dissolve the filter but our limited experience indicates that this alters the filter area and would distort the count. It would not be a very large job to check this out but it was decided that we did not have the time or resources to pursue this further.

In connection with this, however, Dr. Chopra has recently become a Task Group Chairman of an ASTM E-4 subcommittee that is starting to look into SEM, TEM, and related techniques for identifying and counting any type of particulate material. It will, undoubtedly, take several years before a consensus procedure is issued but useful concepts can occur much sooner. Dr. Chopra continues to be very much interested in the application of these techniques to asbestos and we will cooperate actively in supplying samples and the collection of information via our contacts in the asbestos industry.

In our own area we are, at the present time, awaiting delivery (2-3 months) of a new microscope (Capital Budget) that is equipped to examine a specific particle in regular phase contrast, transmitted polarized, and interference phase contrast illumination. This will greatly enhance our ability to distinguish asbestos and nonasbestos particles. It is, however, still subject to the ~900X maximum magnification of optical instruments and we do not know how it will respond to resin coated asbestos fibers.

It should also be noted that the same sort of problem exists in the data obtained from the sanding and grinding of thermoset and thermoplastic resins. This may be alleviated with the new OSHA regulations but these appear to be nearly a year away.

With our present manpower and priorities we plan to follow the course of actio listed below in this area of activity:

HBR 1. Provide assistance as requested in the California Marks Bill negotiations. (No significant collection of new data planned.)

WCT & HBR? 2. Set up plan and strategy to get some input into the Indiana legislation re their spraying bill.

HBR 3. Cooperate with Dr. Chopra re information and samples.

BLI 4. When the Nikon microscope becomes available, set up routine procedures to reduce the judgment factor in distinguishing asbestos and nonasbestos fibers.

There are no plans for any systematic work on our part to improve analytical procedures or collect samples for a better information package. If anyone has any suggestions on the approach or on priorities, I will be glad to discuss them.

H.B.R.