

~~OK for 76~~

AIRBORNE FIBER COUNTS

for

American Biltrite Rubber Company
Trenton, New Jersey

March 1, 1972

Sampling & Counting by: Mr. P. W. McDaniel
Industrial Hygienist
Union Carbide Corporation

Reported by: Mr. J. L. Myers
Marketing Manager
"Calidria" Asbestos
Union Carbide Corporation

UNION CARBIDE CORPORATION
Mining and Metals Division
Niagara Falls, New York

A23874

AIRBORNE ASBESTOS FIBER COUNTS

DESCRIPTION OF PLANT AND TESTS

The tests were conducted in an average size floor tile plant. Vinyl/asbestos floor tile was being produced, as well as "chips" and other flooring products.

Asbestos and other dry materials such as limestone, pigments, resin, etc., are added to a charge hopper or blender. The mixture of raw materials is then dumped into a Banbury or similar type of high shear mixer.

All asbestos involved during the tests was open fiber Canadian.

In general the plant seemed very dusty and samples were collected from typical work areas which appeared to be the most likely sources of airborne asbestos. Local ventilation was in operation in equipment areas.

Samples were collected under the direction of a qualified Industrial Hygienist on Millipore filter paper by the use of battery-powered air pumps. The samples were examined for fiber content by a qualified Industrial Hygienist using the microscopic procedure recommended in the proposed OSHA regulations recorded in the Federal Register on January 12, 1972.

TEST RESULTS

It must be recognized that the following data represent a very small number of samples taken over a short interval of time. No general conclusions can be drawn about average fiber counts or other dust levels.

All samples except one had fiber counts less than the emergency OSHA standard of 5 fibers/ml greater than 5 microns.

<u>Sample Location</u>	<u>No. Fibers*</u>
(1) Inside railroad boxcar during manual handling of bags of Canadian asbestos	21.09
(2) At breathing zone of operators adding asbestos and other raw materials to Banbury charge hopper	1.28
(3) Background on platform at blender (no operation)	0.54
(4) Same as (3) while adding asbestos from bags	2.03
(5) Aisleway between 2 Banbury lines	0.75
(6) Aisleway in back of line	1.41
(7) At finished tile cut-out machine	1.11

*No. fibers $> 5\mu$ per ml. air.

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~~SECRET~~

INTERNAL CORRESPONDENCE

UNION CARBIDE CORPORATION

270 PARK AVENUE, NEW YORK, NEW YORK 10017

To (Name)	Mr. J. L. Myers	Date	June 1, 1972
Division	Mining and Metals	Originating Dept.	Medical Department
Location	Niagara Falls, N. Y.	Answering letter date	
Copy to	Mr. W. N. Johnson Mr. R. Marsden Mr. J. W. Rawlings Dr. J. J. Welsh/Dr. K. S. Lane	Subject	

Dear Mr. Myers:

On May 24, 1972, Mr. R. Marsden (of King City Mining and Metals) and I conducted a study at American Biltrite Co., Los Angeles, California to evaluate exposure of personnel to asbestos dust in selected operations involved in the production of vinyl floor tile. Air samples were collected at breathing level as close as possible to operating personnel at these locations for periods not less than 15 minutes per sample as generally recommended for OSHA Compliance studies. Fiber content of the samples was determined by phase microscopy in accord with the procedure specified in OSHA regulations.

Effort was made to determine if a difference in airborne fiber concentration could be detected between the handling and dumping of pellets (UCC) into the mix blenders and the handling and dumping of open fiber (Atlas Co.) into the blenders. Unfortunately, the two blenders,

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Mr. J. L. Myers

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June 1, 1972

which were side by side, were operated in an overlapping series time-wise so that there was never a period during which pelletized material was the exclusive new source of fiber. In addition the fact that open fiber had been handled most of the time prior to our tests made it unlikely that we would have been able to find a period during that day in which all the existing fiber came from pellets. To obtain this condition, I now think that pellets would have to be run alone for several days for comparison with open fiber used over a similar period of time.

Our results do not indicate the presence of heavy concentrations of fiber in the air. There might be short intervals (5-10 minutes) during the loading of a blender when the concentrations near the operator may be higher, but weighted exposure of personnel would still be low. While there was much visible particulate matter in the work environment, it apparently was plasticizer, limestone or something else but not fiber. The fiber shown for locations other than the blender platform could have been from either source (pellets or open fiber).

Very truly yours,

Paul W. McDaniel

Paul W. McDaniel
Industrial Hygiene Engineer

PWM:lk
Attachments

A23877

SAMPLE RESULTS

May 24, 1972

redue to 1 p-28

Location and Sample No.

Fibers 5 micron or more
in length per ml of air

Blender Charge Platform

In front of blender #1 (blending Atlas
fiber) during charging of #2 with
pellets (#1DM)

0.8

In front of blender #2 during same
period as above (#1PM)

0.6

In front of blender #1 during period
following charging of #2 with pellets.
(#2DM)

0.6

In front of blender #2 during same
period (#2PM)

0.5

Bucket Location (ground level)

Below blenders during blender
operation and blender unloading
to conveyor (#3DM)
(#3PM)

0.3

0.4

Blender Charge Platform

In front of blender #1 during charge
with Atlas open fiber (#4DM)

1.0

In front of blender #2 during same
period. Blender #2 running pellets.
(#4PM)

0.3

In front of blender #1 during loading
of #2 with Atlas Fiber. (#6DM).

3.4

In front of blender #2 during same
period. (#6PM).

1.9

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<u>Location and Sample No.</u>	<u>Fibers 5 micron or more in length per ml of air</u>
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Sweco Screen Area

General area around screen (#5DM).	1.0
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Beside operator loading conveyor feeding hammer mill (#5PM)'	2.0
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OK for 76

THE DISCOVERY COMPANY

UNION CARBIDE CORPORATION • MINING & METALS DIVISION • P.O. BOX 579 • NIAGARA FALLS, N.Y. 14302 • TEL: 716-285-3311

June 14, 1972

Mr. Richard Allen
American Biltrite Rubber Company
15300 Valley View Avenue
La Mirada, California 90638

Dear Mr. Allen:

The attached sheet summarizes the results of the study conducted at your plant on May 24, 1972, to evaluate the exposure of personnel to airborne asbestos fiber.

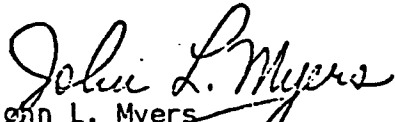
Air samples were collected at the breathing level as near as possible to operating positions for periods not less than 15 minutes per sample, as generally recommended for OSHA compliance studies. Fiber content of the samples was determined by phase microscopy in accord with OSHA procedures. All work was done by or was under the direct supervision of a qualified industrial hygiene engineer.

The results do not indicate heavy concentrations of fiber in the air as all samples contained less than the OSHA standard of 5 fibers greater than 5 microns in length per ml of air. The seemingly high concentration of visible particulate matter in the work environment apparently was due to plasticizer, limestone or other dusty materials.

The nature of the operations did not permit a good comparison between the dust generated by SG-100 pellets vs. conventional open fiber. However, the "Blender Charge Platform" data do indicate a marked reduction of airborne fiber while using pelletized asbestos.

We appreciate the opportunity to assist you and we are pleased that the results seem satisfactory. We trust that your use of SG-100, or perhaps SG-101, will continue. Please let me know if we can be of any further assistance.

Very truly yours,


John L. Myers
Marketing Manager

cc: Mr. T. W. Beliakoff
Mr. R. E. Byrne

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bcc: Mr. T. P. Norris
Mr. J. W. Rawlings
KC-File

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SAMPLE RESULTS

May 24, 1972

Location and Sample No.Fibers 5 micron or more
in length per ml of airBlender Charge PlatformIn front of blender #1 (blending Atlas
fiber) during charging of #2 with
pellets (#1DM)

0.8

In front of blender #2 during same
period as above (#1PM)

0.6

In Front of blender #1 during period
following charging of #2 with pellets.
(#2DM)

0.6

In front of blender #2 during same
period (#2PM)

0.5

Bucket Location (ground level)Below blenders during blender
operation and blender unloading
to conveyor (#3DM)
(#3PM)

0.3

0.4

Blender Charge PlatformIn front of blender #1 during charge
with Atlas open fiber (#4DM)

1.0

In front of blender #2 during same
period. Blender #2 running pellets.
(#4PM)

0.3

In front of blender #1 during loading
of #2 with Atlas Fiber. (#6DM)

3.4

In front of blender #2 during same
period. (#6PM)

1.9

Sweco Screen AreaGeneral area around screen
(#5DM).

1.0

Beside operator loading conveyor
feeding hammer mill (#5PM).

2.0

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~~CONFIDENTIAL~~

KENTILE FLOORS Int.

BROOKLYN, NEW YORK 11215

RECEIVED
OCT 27 1972
UCC-CALIBRE
INACAT

October 27, 1972

Union Carbide Corporation
Mining & Metals Division
P. O. Box 579
Niagara Falls, New York 14302

Att: Mr. John L. Myers

Dear Mr. Myers:

Confirming our telephone conversation of October 25th, we are most appreciative of your offer resulting from our conversation relative to the testing of asbestos dust samples. We have this date forwarded to your attention ten (10) separate samples which we identified as follows:

<u>Sample Number</u>	<u>ML's of Air</u>
1	150,000
2	150,000
3	114,000
4	96,600
5	21,000
B - 36	118,800
B - 37	87,400
B - 38	118,800
B - 39	91,080
B - 40	91,080

We would appreciate your returning to us the remaining unused portion of the samples when you are through with your tests.

As I explained to you we are getting very wide discrepancies in our testing vs. our insurance company, the state and federal government tests. These particular samples were tested initially by us then by our insurance company and we felt that with your company's expertise in this matter we may be able to resolve the discrepancies which have cropped up.

We understand that you will be unable to ship asbestos in plastic bags until some time after the first of the year. We would appreciate

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