Engle

UNION CARBIDE ASBESTOS

THE DISCOVERY COMPANY

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

November 13, 1972

Mr. G. Hicks
Reichhold Chemical Industries
Azusa, California

Dear Mr. Hicks:

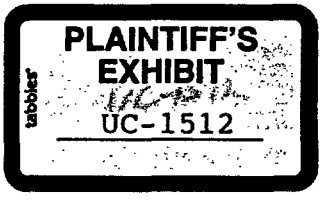
Enclosed is a report of the airborne dust samples collected at your facility in Azusa on October 19, 1972. Also enclosed, in duplicate, is a letter requesting permission to use the information contained in the report without identifying the source. Please sign and return one copy of the letter.

The highest fiber count noted was on the operator sampler which was affixed so that the filter was adjacent to his breathing zone (both operators were wearing respirators). The count of 1.6 fibers per milliliter is below the limit established by OSHA for 1976 and is for only a 20-minute period. Under the 1976 standards a level of 2 fibers per milliliter is allowable for 8 hours per day. Even if the monitored operation was performed 12 times per day by the same operator, his time weighted average exposure would be less than one fiber per milliliter.

Although the number of samples collected during your operation may seem small, I feel sure that they were representative and are adequate for this relatively small usage of asbestos. We are trying to show that RG-244 can safely and readily be used with no chance of violating OSHA regulations or safety standards. We are finding similarly low counts in customer's plants using several thousand pounds of asbestos per day and can assure you that the use of chrysotile asbestos will not be prohibited.

It is obvious that you have no problem with using RG-244 and your men would not be required under OSHA's asbestos regulations to wear respirators. However, you may want to continue them as a general practice and when handling the more dusty fumed silica products.

We appreciate yours and Mr. Wasson's cooperation in conducting this test and please extend my thanks to Mr. Reich and his men for their assistance. As you know, we anticipate that the results of this survey will assist in the expanded acceptance




A14119

and usage of RG-244 in other RCI plants. Please advise if you would like for me to send copies of this letter and report to others within your organization.

If you have any questions about the tests or the report, please contact Bob Byrne or me.

Very truly yours,

John L. Myers

John L. Myers

/cvb
Enclosure

cc: Mr. R. E. Byrne
Mr. D. Wasson

bcc: Mr. E. J. Kleber
Mr. J. Rittenberg
Dr. H. B. Rhodes
NF-File

A14120

# AIRBORNE DUST COUNTS

for

Reichhold Chemical Industries
Azusa, California

November 7, 1972

Present: J. L. Myers
Union Carbide Corporation

J. Rittenberg
Harrisons & Crosfield (Pacific) Inc.

S. Reich
Reichhold Chemical Industries

Microscope Counts
Performed By : E. J. Kleber
Union Carbide Corporation

A14121

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

The results of microscope counts for air samples collected at Reichhold Chemical Industries, Azusa, California, October 19, 1972 are attached.

Apparatus & Procedure

Sampling and dust counting were carried out in accordance with OSHA Regulation 1910.93a.

Personal air samplers, calibrated to 2 liters per minute, were used to collect personal breathing zone and environmental samples on Millipore membrane filters of 0.8 micron porosity.

Fiber counting was performed on a Leitz microscope utilizing phase contrast illumination at 400X and a Patterson Globe and Circle reticle.

Total dust was determined by light field microscopy at 100X.

Test Results

Two figures have been reported for each sample. They are:

1) Total Fiber - Any material 5 microns or longer having an aspect ratio of 3 or greater. Reported as fibers per milliliter.

2) Total Dust - Any fiber or particle present. Reported as million particles per cubic foot.

Enclosed for reference is a copy of the OSHA Standard for exposure to asbestos dust, which includes silica and inert dust limits.

A14122

## SUMMARY OF DUST COUNTS

| N.B. No. | Description | Fiber Count Fibers/ml > 5μ | Total Dust mmppcf |
|---|---|---|---|
| 1929-26-1 | Background (21 min.) - 7' from mix tank just prior to dump. Sample 5' from floor mounted on 10,000 gallon tank. | 0.20 | 0.15 |
| 1929-26-2 | Environmental (20 min.) - Same position as above, during dump. | 0.41 | 0.13 |
| 1929-26-3 | Personal (20 min.) - Operator dumping 45 bags of RG-244 into 10,000 gallon tank containing 75,000 pounds polyester. | 1.60 | 0.18 |

## TRIP REPORT EXCERPT

Three samples were collected:

#18 - A 21-minute background
#32 - A 20-minute "personal" during dumping
#80 - A 20-minute "environmental" during dumping

Because of the obviously low amount of fiber present, no "decay" sample was collected after the charging operation was completed. 45 bags of RG-244 were dumped during 18 minutes and two minutes were spent bundling and discarding the empty bags.

The operation consisted of adding 450 pounds of RG-244 to about 75,000 pounds of polyester resin (~9,000 gallons). A "Lightnin' Mixer" was in operation during the addition and the Vortex mixer will be operated for four hours after. Styrene will be added to a final viscosity of 240-280 cps and a final weight of 80-82,000 pounds of resin.

There was no tank ventilation but two 30 inch window fans were in service and the operator stood up wind of one during dumping. The environmental sample was collected near an adjacent tank (7' distant and 5' from floor) to detect the potential exposure of an employee near the dump location. The only visible dust was during empty bag handling.

There was a considerable amount of pyrogenic silica dust on the floor and tank surfaces; and the workmen prefer to handle RG-244 because of less bags, smaller bags and less dust. They had no comments on our packaging and saw no objections to shrink filming the pallets, replacing the cardboard covers. They have replaced 1% silica with 0.6-0.8% RG-244 and are very pleased with results and cost savings.

They use Dollinger fluted filters about 30" high and 20" in diameter with 60 mesh screens. They have no complaints with plugging, stability, settling, etc.