PLAINTIFF'S EXHIBIT
UC-4952

UC 145-2

UNION CARBIDE

INTERNAL CORRESPONDENCE

METALS DIVISION • P. O. BOX 579 · 4625 ROYAL AVE., NIAGARA FALLS, NEW YORK 1430[illegible]

To (Name) Mr. E. W. Shortridge
Division UCC - Metals Division
Location King City, California

Date June 14, 1978

Originating Dept. "Calidria" Asbestos

Answering letter date

Copy to Messrs. R. E. Byrne, Jr.
B. L. Ingalls
P. W. McDaniel
J. L. Myers
H. B. Rhodes
W. C. Thurber
File

Subject Airborne Asbestos Counts for Union Carbide Corp. King City, California

Attached are the results of ceiling counts performed on short-term samples obtained at King City on April 19, 20, 25 and 26, 1978.

These samples are the second series obtained for the cooperative monitoring program. As further results become available, they will be issued.

Glenda J. Spencer

GJS/rmm
Attachment

Blind
P.S. - EWS

Earl,

We had some difficulty matching samples with information provided on data sheets submitted by King City, therefore, we were unable to count three samples. (one from 4/20 and two from 4-24) Two samples received were marked 2-1-24 and one was marked 2-1-78. Since the time factors indicated on data sheets were of varying duration, we were unable to even estimate ceiling concentrations in any of these three cases. Therefore, our report does not contain counts for 4/25 and only one count obtained 4/20.

409241

GJS

AIRBORNE ASBESTOS COUNTS
for
Union Carbide Corporation
King City, California

Date Sampled:	April 19, 20, 25, 26, 1978
Date Reported:	June 14, 1978

Samples Collected By:	Union Carbide Corporation King City, California
Samples Analyzed By:	Glenda J. Spencer Union Carbide Corporation
Reported By:	Glenda J. Spencer Union Carbide Corporation

Union Carbide Corporation
Metals Division
Niagara Falls, New York

X409242

SAMPLE EQUIPMENT AND TEST PROCEDURES

Sampling and dust counting were carried out in accordance with OSHA Regulation 1910.1001, using the Bayer, Zumwalde and Brown method for counting asbestos fibers by phase contrast microscopy (Bureau of Occupational Safety and Health, Feb. 1969).

Battery-powered air pumps (M.S.A. type), 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 Nikon phase contrast microscope at 400X utilizing a Porton reticle for sizing and field definition.

Two results have been reported for each sample - they are:

1. Chrysotile Asbestos - Any fiber having an aspect ratio ≥3 and a length ≥5μ that is in the operator's judgement chrysotile. In the event of doubt and in the absence of further information, any fiber having the above physical dimensions will also be counted as chrysotile.

2. Possible Amphibole Asbestos - Any fiber having an aspect ratio ≥3 and a length ≥5μ that is not obvious to be material other than asbestos. This includes all amphiboles and material similar in appearance.

COMMENTS

The OSHA regulations permit a maximum limit of 2 fibers greater than 5 microns in length per cubic centimeter of air sampled on an 8-hour, time-weighted average (TWA). The formula $\frac{C_1T_1 + C_2T_2 + C_nT_n}{\Sigma T}$ describes the TWA

where C = fiber count in fibers/cc and T = time.

The regulations also stipulate a ceiling concentration of 10 fibers/cc greater than 5 microns which is not to be exceeded at any time.

TEST RESULTS

The details of sample collection and resultant fiber counts are listed in the attached table(s).

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OBJECTIVE

To monitor airborne asbestos emissions at the subject company's production facilities during the bagging and palletizing of "Calidria" RG-244 asbestos.

DESCRIPTION OF OPERATION

Production operation included bagging, shrink-wrapping and palletizing RG-244. Personal samples were obtained on April 19, 20, 25, 26, 1978. The following conditions during monitoring were noted by King City:

April 19, 1978

Full bagging, shrink-wrapping and palletizing RG-244, pallets moved from bagging room to storage area, samples delivered to laboratory. Weather conditions: north door open, clear day, 5-10 mph wind from north.

April 20, 1978

Full bagging, shrink-wrapping and palletizing RG-244, pallets moved from bagging room to storage area, samples delivered to laboratory. Weather conditions: north door open, light wind from north, rain P.M.

April 25, 1978

Full bagging, shrink-wrapping, palletizing RG-244, pallets moved from bagging room to storage area, samples delivered to laboratory. Weather conditions: north door open, 5-18 mph wind from south, rain A.M., cloudy P.M.

April 26, 1978

Full bagging, shrink-wrapping, palletizing RG-244, pallets moved from bagging room to storage area, samples delivered to laboratory. Weather conditions: north door open, no wind, partly cloudy.

X409244

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SUMMARY OF FIBER COUNTS

Sample No.	Air Sample Time		Minutes	Operation Description	Airborne Fiber Count (fibers/cc >5μ) Chrysotile Asbestos	Possible Amphibol Asbestos
2-1-19	On:	1:07P	60	April 19, 1978 - Personal samples were obtained during bagging, shrink wrapping, palletizing RG-244, transfer of pallets to storage area and delivery of samples to laboratory. Conditions: north door open, 5-10 mph wind from north, clear day.	1.5	0
	Off:	2:07				
2-2-19	On:	2:08P	61		1.9	0
	Off:	3:09				
2-2-20	On:	2:02P	81	April 20, 1978 - Personal sample obtained during bagging, shrink-wrapping, palletizing RG-244, transfer of pallets to storage area and delivery of samples to laboratory. Conditions: north door open, light wind from north, rain in the afternoon.	1.4	0
	Off:	3:23				
2-1-25	On:	12:52P	60	April 25, 1978 - Personal samples were obtained during bagging, shrink-wrapping, palletizing RG-244, transfer of pallets to storage area and delivery of samples to laboratory. Conditions: north door open, 5-18 mph wind from south, rain in the morning.	2.1	0
	Off:	1:52				
2-2-25	On:	1:53P	60		1.9	0
	Off:	2:53				
4-1-26	On:	9:14A	65	April 26, 1978 - Personal sampels were obtained during bagging, shrink wrapping, palletizing RG-244, transfer of pallets to storage area and delivery of samples to laboratory. Conditions: north door open, no wind, partly cloudy.	0.9	0
	Off:	10:19				
4-2-26	On:	10:21A	64		1.2	0
	Off:	11:25				

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