PLAINTIFF'S EXHIBIT

UC-4919

UC 149-7

UNION CARBIDE

INTERNAL CORRESPONDENCE

METALS DIVISION

P. O. BOX 579 · 4625 ROYAL AVE., NIAGARA FALLS, NEW YORK 14302

To (Name) Messrs. R. E. Byrne, Jr.
Division B. L. Ingalls
Location R. J. Kennedy, Sr.
J. L. Myers
H. B. Rhodes

Copy to File

Date October 26, 1978

Originating Dept. "Calidria" Asbestos

Answering letter date

Subject Airborne Asbestos Counts - Niagara Falls, New York

Attached are the results of airborne asbestos counts obtained in the Niagara Falls Quality Control Lab on October 11, 1978.

The personal TWA for Bob Kennedy, Sr. calculated from samples obtained throughout 5.76 hours was found to be 0.1 fibers/cc.

The personal TWA for Bob Robozza for 4.06 hours was 0.04 fibers/cc.

Glenda J. Spencer

GJS/rmm
Attachment

X418635

AIRBORNE ASBESTOS COUNTS

for

Union Carbide Corporation
Niagara Falls, New York

Date Sampled: October 11, 1978
Date Reported: October 17, 1978

Samples Collected By: G. J. Spencer
Union Carbide Corporation

Samples Analyzed By: G. J. Spencer
Union Carbide Corporation

Reported By: G. J. Spencer
Union Carbide Corporation

Union Carbide Corporation
Metals Division
Niagara Falls, New York

X418636

OBJECTIVE

To monitor airborne asbestos emissions during the use of small quantities of "Calidria" asbestos.

DESCRIPTION OF OPERATION

Personal samples were obtained in Lab 118 during regular quality control testing of "Calidria" asbestos products.

X418637

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asbestosclaims.law/library/19426/3

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).

X418638

SUMMARY OF FIBER COUNTS

ample No.	Air Sample Time	Minutes	Operation Description	Airborne Fiber Count (fibers/cc >5μ) Chrysotile Asbestos	Possible Amphibole Asbestos
D-70	On: 8:35 Off: 9:31 On: 9:53 Off: 10:59	122	Personal - Bob Kennedy, Sr. - During quality control testing of various asbestos products. Located Bldg. 166, Lab 118.	0.1	0
S-87	On: 10:59 Off: 12:00 On: 12:30 Off: 2:07	158	Personal - Bob Kennedy, Sr. - During quality control testing of various asbestos products. Located Bldg. 166, Lab 118.	0.1	0
A-13	On: 2:07 Off: 2:30 On: 2:50 Off: 3:33	66	Personal - Bob Kennedy, Sr. - During quality control testing of various asbestos products. Located Bldg. 166, Lab. 118.	0.03	0
S-45	On: 8:31 Off: 11:00	149	Personal - Bob Robozza - Located quality control Lab 118, Bldg. 166.	0.03	0
S-34	On: 11:00 Off: 11:55	55	Personal - Bob Robozza - Located quality control Lab 118, Bldg. 166.	0.11	0
C-51	On: 1:15 Off: 1:55	40	Personal - Bob Robozza - Located quality control Lab 118, Bldg. 166.	0	0

TWA - Bob Kennedy, Sr. (5.76 hours) = $\overset{D-70}{122}(0.1)+\overset{S-87}{158}(0.1)+\overset{A-13}{66}(0.03)/346 =$

12.2+15.8+1.98/346 = 29.98/346 = 0.1 Fibers/cc

TWA - Bob Robozza (4.06) hours) = $\overset{S-45}{149}(0.03)+\overset{S-34}{55}(0.11)+\overset{C-51}{40}(0)/244 =$

4.47+6.05+0/244 = 10.52/244 = 0.04 Fibers/cc

X418639