UC 149-2

UNION CARBIDE **INTERNAL CORRESPONDENCE**

PLAINTIFF'S EXHIBIT
UC-2207

APR 27 1977

METALS DIVISION • P.O. BOX 579 - 4625 ROYAL AVE., NIAGARA FALLS, NEW YORK 14302

To (Name) Mr. T. P. Norris (3)
Division UCC
Location 100 Oceangate
Long Beach, CA 90802

Date April 22, 1977
Originating Dept. "Calidria" Asbestos
Answering letter date
Subject Airborne Fiber Counts for Hamilton, Orange, CA

J-3

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

Enclosed you will find three copies of the report on Airborne Fiber Counts performed at Hamilton on March 7 and 18, 1977.

Glenda Spencer
G. J. Spencer

GJS:dal
Enclosures

AIRBORNE FIBER COUNTS

for

Hamilton
Orange, California

Date Sampled: March 7 & 18, 1977
Date Reported: April 14, 1977

Samples Collected By: T. P. Norris & 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

OBJECTIVES

(1) To monitor airborne asbestos emissions at the subject company's production facilities during the use of Carey 7RF10 and 5R01.

(2) To monitor airborne asbestos emissions at the subject company's warehouse facilities in the storage area of Carey 7RF10; and finished materials (Plas Tex).

DESCRIPTION OF OPERATIONS

March 7, 1977

Three area samples were obtained in the warehouse storage facilities for Carey 7RF10 and finished materials (Plas Tex).

Two area samples were obtained in the vicinity of an air blender (located second level) during the use of bentonite, mica and clay.

March 18, 1977

A personal sample was obtained during the addition of 400 lbs. Carey 7RF10 to an air blender (located second level) in the formulation of dry mix ceiling texture. Other fillers added included: clay, mica, bentonite, methocel and glomaxll.

A personal sample was obtained during the bagging of Plas Tex and during the dump of 30 lbs. 5R01.

A personal sample was obtained during bagging operation (located first level).

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).

Hamilton
Orange, California

Sample No.	Air Sample Time	Minutes	Operation Description	Airborne Fiber Count (fibers/cc >5μ) Chrysotile Asbestos	Possible Amphibole Asbestos
			Samples obtained - March 7, 1977		
R-5	on: 3:29P off: 3:51P	22	Area (Warehouse) - Located 6' from floor-immediate to Plas-Tex storage. Adjacent to 20' doors. No operation was in progress during monitoring.	0.1	0
R-24	on: 3:32P off: 3:55P	23	Area (Warehouse) - Located ~5' from bags and 4 1/2' from floor in Carey 7RF10 storage area. Monitor ~40' from 20' open doors. A fork lift was operating in the warehouse during monitoring.	0.1	0
J-80	on: 3:34P off: 3:57P	23	Area (Warehouse) - Located ~6' from floor. Monitor placed directly on bags of Carey 7RF10. A fork lift was operating in the warehouse during monitoring.	<0.1	0
J-88	on: 4:05P off: 4:19P	14	Area - Located at air blender ~4 1/2' from ground and ~8' from dump-(on scale). Dump area directly down wind and adjacent to 20' open doors. Fillers being dumped at the time of monitoring included bentonite, mica and clay.	0.3 Sample heavily loaded with fine particulate and material chunky in appearance.	0
C-31	on: 4:05P off: 4:19P	14	Area - Located at air blender ~5' from ground and ~8' from dump. Fillers being dumped at the time of monitoring included bentonite, mica and clay.	0.1 Sample heavily loaded with fine particulate and material chunky in appearance.	0
			Samples obtained - March 18, 1977		
B-19	on: 2:55P off: 3:10P	15	Personal - (Ray Mundo) dump operator. Located second level at air blender - adjacent to 20' open doors. During the use of 400 lbs. Carey 7RF10. Other fillers used during monitoring included mica, bentonite, Methocel and Glomaxll. Product manufactured was Plas-Tex (dry mix ceiling texture).	0.9 Sample heavily loaded with particulate. Difficult to count.	0.1
B-21	on: 3:13P off: 3:30P	17	Personal - (Ray Cuellar) panel operator. During bagging operation and making 30 lb. addition of 5R01.	6.6 Sample heavily loaded with particulate. Difficult to count.	1.3
B-47	on: 3:32P off: 3:50P	18	Personal - (Raul Gonzales) bagger. Located first level - center of plant. All doors were open during monitoring.	0	0