UC 149-2

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PLAINTIFF'S EXHIBIT
UC-220

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To (Name) Mr. J. A. Riddle
Division Chemicals & Plastics
Location Box K
King City, Calif. 93930

Date June 20, 1969

Originating Dept. Medical Department

Answering letter date

Copy to Dr. J. J. Welsh/Dr. K. S. Lane

Subject

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Dear Mr. Riddle:

During my recent visit to King City I collected samples of airborne dust for count with our microscope in New York in addition to samples we collected for counting with the microscope at the plant. In both instances the counts were made of particles greater than 5 microns in length or diameter by phase microscopy at a magnification of 400 times in accord with the most recent proposed procedures. The recommended threshold limit for asbestos by this technique is 12 fibers 5 microns or greater in length per milliliter of air. As a matter of safety we assumed any particle having a dimension of 5 microns or more was fiber.

The results we obtained by count with plant equipment and those obtained by count with the equipment in New York were as follows:

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Sampling Location and Operation	Particles (≥ 5 micron) per ml. of air King City count. collected 6/11/69	New York count. collected 6/12/69	Remarks
Rock fiber refiner area, (wet area- all circuits operating)	6 4	3 4	Weather: fair and mild during both days. Doors and windows open. No great amount of visible dust noted.
Around automatic pallitizer (HPP) (Hauling out product, wet dust return and vent systems operating)	6 6	6 5	
Beside bagger operator bagging HPP (pellets)	8 8	16 9	
Filter press area - very humid	5 6		
South fence line. 5-10 mph wind from northwest	4 8	4 2	
Riding front end loader, hauling from stock pile to #202 hopper.	16 8	14 12	
Sample packaging area above change room.	7 6		

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Union Carbide trial exhibit UC-220: Paul W. McDaniel to J. A. Riddle on Airborne Dust Counts at the King City Plant...
ACL Doc 15478 · Page 2 of 3
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As you will note, only at the bagger and on the front end loader moving ore did the count exceed 12 per ml. The bagger operator, of course and all personnel on the dry side of the circuit wear respirators. The operator of the front end loader should also wear a respirator during the type of operation we examined.

During this visit, as you know, we also worked with your laboratory technician (Gabe) in setting up a sampling-counting procedure he can follow for monthly surveys of the plant. In August, if possible, I'll again review the procedure with him and evaluate the effectiveness of our techniques.

You may be interested to learn that on Wednesday of this week, at a meeting dealing with asbestos, I briefly discussed the significance of material shorter than 5 microns with Lewis Cralley who is head of the Occupational Research Facility of the U. S. Public Health Service. He told me that they regard the shorter fibers as of significance too, but that they don't know if they are as important as the longer fibers. I intend to visit him in Cincinnati at a later date to further discuss the subject. He emphasized that they have no doubt that asbestos can be handled safely, with practical precautions.

Very truly yours,

Paul W. McDaniel

Paul W. McDaniel
Industrial Hygiene Engineer

PWM:dp

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