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McCormick #7

Commonwealth of Pennsylvania
Department of Health

DIVISION OF OCCUPATIONAL HEALTH

Report of Survey

Asten-Hill Manufacturing Company
Roberts & Henry Avenues
Philadelphia 29, Pennsylvania

At the request of Mr. Donald R. Holmes, superintendent, a survey was made to determine the extent of the asbestos dust hazard in the plant. The survey was performed during the summer of 1959 with the cooperation of personnel of the plant.

RECOMMENDATIONS

Based on the findings of this survey, no recommendations are necessary.

DETAILED FINDINGS

The company was engaged in the manufacture of asbestos textile products. As such there existed a potential asbestos dust exposure at the various operations involved such as the picker, carding machines, twisters, winders, and weaving looms. Atmospheric samples were collected with the Greenburg-Smith impinger and dust counts were performed by means of the light-field technique. Table 1 gives the dust concentrations as found at the time of the survey. These concentrations indicate that the measures utilized to control the dust were functioning satisfactorily, and compared favorably with concentrations found in previous surveys in the plant. The company is engaged in the planning of process modifications which may reduce airborne dust to even lower levels.

Particle size measurements of the dust given in Table 2 indicate that the dust is capable of entering the lungs and being retained. Since even with low concentrations of asbestos dust, cases of asbestosis may occur in exposed workers, it is necessary that the plant continue with its medical program including the periodic chest X-ray of exposed personnel.

PLAINTIFF'S EXHIBIT
SF 819.2

#11

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Table 1 — Dust Concentrations

Asten-Hill Manufacturing Company
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1957 ↓

Sampling location	Dust* (millions of particles per cubic foot of air) Sample	Average	
Condenser	2.8 2.8 3.3	3.0	3.7
Picker	1.6 2.6 3.8	2.7	4.2
Card #6, take-off end	3.2 2.5 3.5	3.1	1.1
Card #2, take-off end	2.6 2.2 4.4	3.1	2.8
Card #4, take-off end	1.6 2.2 2.4	2.1	1.5
General atmosphere Feed end, cards #1 and 2	1.7 2.4 3.8	2.6	3.5
Between cards #5 and 6	2.9 2.6	2.8	1.2
Aisle, near twister #2	0.96 2.1	1.5	2.0
Between #1 and 2 twisters	2.3 3.1 3.3	2.9	1.9

Table 1, continued

Sampling location	Dust* (millions of particles per cubic foot of air) Sample	Average	
General atmosphere Between #8 and 9 twisters	3.6 5.2	4.4	2.32
Between #4 and 5 twisters	2.3 5.6 3.1	3.6	2.2
Between #7 and 8 twisters	3.3 1.7	2.5	2.07
Universal winders #3 and 4	2.8 5.6 3.1	3.6	1.7
#7 and 8 winders	3.0 1.6 3.7	2.7	1.9
#7 winder	4.1 4.1 3.3	3.8	2.0
#6 winder	4.1 3.9 2.6	3.5	2.0
Between looms #13 and 23	3.6 0.6 1.5	1.9	2.75
Loom #14	0.8 3.2 4.6	2.9	1.2
Loom #25	0.5 4.0	2.2	3.1

Table 1, continued

Sampling location	Dust* (millions of particles per cubic foot of air) Sample	Average	1957
Loom #19	1.4 1.9 1.6	1.6	1.6
Loom #3	1.0 3.3 3.3	2.5	1.6
Loom #5	2.7 2.2 2.8	2.6	3.1
Loom #22	3.1 3.0	3.0	1.3
Loom #33	3.2 3.0 3.7	3.3	3.0
Front of loom #14	2.2 1.2 2.2	1.9	1.2
Loom #28	3.5		3.2
Loom #1	4.1		1.8
General atmosphere, weave room and winding room	2.2 0.6 1.6	1.5	1 to 2

*Maximum allowable concentration for asbestos dust: 5 million particles per cubic foot of air, based on an 8-hour working day

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Table 2 Particle Size Measurements

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Sampling location	Median particle size (microns)	Standard deviation
Picker	1.05	1.9
Loom #22	1.06	1.74
Card #4, take-off end	1.03	1.75
Card #4, feed end	1.06	1.75
Between twisters #1 and 2	1.07	1.82

Survey by -

Walter L. Grice
Industrial Hygienist

William H. Taylor
Industrial Hygienist

February 24, 1960

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