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Mines - Dust Condition Survey



KING MINE

ASBESTOS CORPORATION

Thetford Mines, Quebec, Can.

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A recheck survey of the dust conditions in the mill of this company was made by the Industrial Health Section of the Metropolitan Life Insurance Company on October 26, 1944.

A previous study had been made in June, 1930.

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*See also Lanza - 2070
Lanza - 2077*

INSTITUTE OF OCCUPATIONAL
AND
ENVIRONMENTAL HEALTH
MONTREAL, CANADA

MANUFACTURING OPERATIONS

No changes have been made in the mill operations since the first survey. The only effort at dust suppression consisted in covering some conveyors.

METHODS OF SAMPLING AND ANALYSIS

The samples were collected and analyzed by the method devised (1) and used by the United States Public Health Service.

The following table shows the concentrations of dust found at the time of this survey.

REPORT OF THE
UNITED STATES
PUBLIC HEALTH SERVICE
AT CANADA

(1) U.S. Public Health Service, Public Health Bulletin #217, Determination and Control of Industrial Dust, J.J. Bloomfield and J.M. Dallavalle, 1935.

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Sample No.	Location	Date of Sampling	Cu. Ft. Air Sampled	Millions of Dust Particles per cu. ft. air	Type of Dust	Remarks
1	Crusher house, picking belts on primary crusher	10/26/44	15.0	11.6	Asbestos talc	Test made on special run of small quantity of rock. Clear day. Not full production.
2	Mill Bldg. 4th floor (fans and collectors)	"	20.0	14.8	"	Brick building, wooden floors. Windows open. Clear day.
3	Mill Bldg. 3rd floor fibre screening	"	15.0	17.0	"	Wooden floor, windows open. Clear day.
4	Mill Bldg. 2nd floor rock screening	"	15.0	26.6	"	
5	Mill Bldg. 1st floor bagging	"	15.0	18.1	"	Concrete floor, windows and doors open. Clear day.

PERSONAL FACILITIES

Ample toilet facilities are provided and kept clean. Drinking water is supplied by bubbler type fountains. Heated rooms or cabanas are located on each floor of the mill building.

CONCLUSIONS AND RECOMMENDATIONS

The concentrations of dust found at the time of this survey are much lower than those found in 1930. This may be due to the mill not operating to capacity and improvement in the housekeeping. Covering of conveyors is, no doubt, a contributing factor also. When the samples were taken, the windows were open and the day was clear.

It is recommended that efforts be made to further reduce the dust concentrations. According to the United States Public Health Service, five million (2) particles per cubic foot may be regarded as the maximum allowable concentration of asbestos dust.

HEALTH HAZARDS

There are attached reprints of two studies which may be of interest in connection with the hazard of asbestos dust:

"Effects of the Inhalation of Asbestos Dust on the Lungs of
Asbestos Workers"

"Asbestosis"

(2) U.S. Public Health Service, Public Health Bulletin No. 641, "A Study of Asbestosis in the Asbestos Textile Industry", 1933.