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UNIE VAN SUID-AFRIKA. UNION OF SOUTH AFRICA.

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In subsequent Correspondence please quote above number.

DEPARTEMENT VAN MYNWESE.
DEPARTMENT OF MINES.
Kantoor van die Staatsmyningenieur,
Office of the Government Mining Engineer.
Goewermentskantore,
Government Offices,
h/v Rissik- en Frederickstraat,
cor. Rissik and Frederick Streets,
Johannesburg.

28 SEP 1960

14-7-1960

The Under-Secretary for Mines,
Central Government Buildings,
PERTH,
WESTERN AUSTRALIA.

Dear Mr. Telfer,

With reference to my letter of 21st May, 1960, I regret to have to inform you that accurate figures on the incidence, the severity of disability and the effect of asbestosis on the asbestos mining industry are not yet available.

As a matter of fact, one of the points which emerged from the recent (1959) Pneumoconiosis Conference in Johannesburg was that the subject of asbestosis should be further investigated in South Africa.

In this connection I might mention that the Proceedings of the Conference are to be published shortly which will include the following papers on Asbestosis:-

(1) "Some Pathological Aspects of Asbestosis in the Union of South Africa," by J.C. Wagner;

(2) "Clinical Aspects of Asbestosis in the Northern Cape" by C.A. Sleggs; and

(3) "The Radiological Aspects of Asbestosis" by M. Hurwitz.

The following is a very brief summary regarding asbestosis in South Africa:-

(a) By 1939 it was clear that employment for long periods underground in the amosite and crocidolite mines was capable (under 1939 conditions) of causing serious lung impairment either from asbestosis or from a combination of that disease with silicosis; also, that serious disablement from asbestosis as a result of employment in surface amosite and crocidolite treatment plants did occur and that the general precautionary measures were inadequate.

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(b) By 1948 extensive dust and medical surveys had been carried out concerning the asbestos mining industry. Much dust was produced, especially in treatment plants where dust control was a problem. The medical surveys confirmed that asbestosis was being contracted.

As a result of these surveys, dust control measures were introduced. Underground, this consisted essentially in the enforcement of wet mining and the use of approved (i.e. wet, vented) rockdrills as is the practice in the gold mines, as well as insistence on adequate supplies of ventilation.

The experience was that asbestos dust, and especially the fibres, lends itself to suppression by water.

The main dust problem, however, occurs in the surface treatment plants because the recovery of the fibre precludes the use of water. Crushing and screening are the main dust producing operations, whilst the dust produced during bagging operations, is the most difficult to control.

The Mines and Works Regulation calling for appliances necessary for the effective prevention of dust arising from the operations conducted at the fiberising plants were enforced at all (except a few small) asbestos fiberising plants.

(c) By 1955, medical control was introduced of all workers in asbestos mines and fiberising plants. By 1957, the number of mines, other than large gold mines, so medically controlled numbered 137, of which 45 were asbestos mines.

(d) By 31st March, 1957, the compensation fund of the 137 mines mentioned in "c", stood at about £1,700,000.

(e) The average conditions found in amosite and crocidolite fiberising plants during the systematic dust surveys done during 1947 to 1952, came to about 230 fibres (of about 200 to 2 micron in length) plus about 650 particles per cubic centimetre (as obtained by konimeter). For chrysotile fiberising plants the corresponding figures came to about 10 fibres plus 450 particles per cubic centimetre.

The conditions recorded underground differed from that in the fiberising plants mainly in respect of fibre concentration which was much less underground than on surface.

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The free silica content of the banded ironstone in which the crocidolite and amosite occur is about 30%, whilst that of the serpentine in which the chrysotile occurs is negligible.

(f) The impression at the Pneumoconiosis Bureau is that whereas the average employment of cases seen with pneumoconiosis (as defined in the Act) in the first stage is about 23 years for employees at large gold mines and about 25 years for employees at coal mines, it is only about 10 years for employees in asbestos mines and plants.

(g) Another point which emerged from the Pneumoconiosis Conference is the occurrence of mesothelioma in persons from the asbestos fields.

The accompanying booklet entitled "Dust In Asbestos Mills" might be of interest.

I hope the above information will be of some assistance to you.

Yours faithfully,

/ Amacon

ACTING GOVERNMENT MINING ENGINEER.

29/9/60

ENCLOS.

T. McShannon 31/10/60