SOUTH AFRICAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH
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PLAINTIFF'S EXHIBIT
TT 238

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JOHANNESBURG.
South Africa/Suid-Afrika.

2nd November, 1959.

Dr. Knox,
North Beightons,
Lowerfold,
ROCHDALE.

Dear Dr. Knox,

Thank you for your letter, I enjoyed hearing from you again.

The mesothelioma problem is my main interest, we now have 37 cases. Four of whom have had only an industrial exposure to Cape Asbestos Fibre and have never lived in the district. In the paper that Doll wrote about the carcinomas from your factory, he mentions one endothelioma.

On going into the history of asbestos mining in the Cape, I found that a company called the Dominion Blue Asbestos Company, a subsidiary of Turner and Newall, built a mill at Kuruman in 1926. This mill was in use for about five years and produced a large amount of fibre. All this fibre according to the report was sent to the Turner and Newall factories in Britain. It would be most important if you could investigate the records of this case of endothelioma and the other cases of carcinoma of the lung that occurred in your factory to see if any of them worked with this fibre from Kuruman.

I agree with you that Dr. Bosner should use asbestos from the Cape. All the women with the ovarian tumour seen at the London Hospital had been employed making asbestos mattresses with Blue fibre. I would refer Dr. Bosner to a paper by Schmahl in the Zeitschrift fur Krebsforschung, Bd 62, S. 561-567 (1958). Schmahl was able to produce sarcomas in rats after intraperitoneal injection of what he called "Mineral Asbestos". I have written to him to ask what form of mineral asbestos he used, but he replied "mineral asbestos", so I am none the wiser.

Regarding your question about the dust counting the method we use is the same as the standard one used in the Chamber of Mines Dust and Ventilation Laboratories. The accuracy of the particle sizes have been checked by electron microscopy. Dr. Nagelschmidt will be able to give you further details, as he is using similar methods.

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Most of our dusting is done in rooms which are 10ft x 10ft x 10ft in size. The dusting mechanism generally used is modified from Schrenke U.S. Bureau of Mines. This consists of a cylinder of dust on a floating platform, and the dust is removed from the cylinder by suction. The platform is raised by a water drip, the rate of drip being used to calibrate the dust concentration. The dust removed from the cylinder is injected into the rooms through a syphon-jet using compressed air at 75 lbs sq. inch. This method is satisfactory for the chrysotile that we obtained from Havelock. However, with coarser particles of crocidolite and amosite, the syphon valve-jet slightly larger and the asbestos is deflected against the ceiling to break up the aggregates.

We have been able to get higher concentrations with the Wright's Dispenser in our modified small dusting chambers which are 28" x 28" x 24". The following are two thermoprecipitator readings.

Rabson Box No. 5. Asbestos Chrysotile. July, 1957.

Microns.	Grading Percentage.	Microns.	Grading Percentage.
+2.2	6.0	+2.2	10.6
2.2-1.0	9.6	2.2-1.0	9.4
1.0-0.3	30.0	1.0-0.3	28.4
0.3	54.4	0.3	51.6

Concentration = 40,000 ppcc
or 1,144,000,000 pp cu ft

Concentration = 46,000 ppcc
or 1,315, 600,000 pp cu ft

We have only been able to use fine chrysotile by this method as the dispenser cannot cope with the coarser particles in the amosite and crocidolite dusts. We agree with you that the use of the thermoprecipitator is not ideal for asbestos dusts, but it does give an indication of the numerous small particles present in even larger fibre crude asbestos.

I still believe that it is the smaller particles that are responsible for the disease. Dr. Vorwald has examined the histological sections from the animals exposed to the chrysotile dust from Havelock, and he accepts the fact that the lesions are due to these fine particles, but feels that the larger fibres are equally toxic. Only very few fibres and bodies are seen in these sections.

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I know that you dont accept it, but I am becoming more and more convinced that the asbestos bodies are the red herrings of asbestosis.

(I have pleasant memories of the Hallé orchestra.

With kind regards to you and your wife.)

Yours sincerely,

DR. J.C. WAGNER.