

FILE NAME: Goodyear (GY)

DATE: 1947 July

DOC#: GY003

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July 31, 1947

Re: Claim C.D. 4488-22
Carl Milec

Medical Department
Industrial Commission of Ohio
Columbus, Ohio

Gentlemen:

On July 22 a visit was made to the Goodyear Tire and Rubber Co. to check conditions under which the above named claimant worked. The claimant had cleaned tire molds for this company since May 29, 1918.

Tire molds would have a small accumulation of talc, scorchstone and rubber on them which would have to be cleaned periodically in order to produce a good tire. Prior to 1921 tire molds were cleaned by means of an abrasive blast, using sand as an abrasive, and with an emery cloth. The equipment which was used at that time is still used for other purposes at the plant. It consists of an iron frame into which the mold can be placed in a horizontal position and the abrasive directed at the mold through an opening 9"x18". There was an air velocity of 2000 f.p.m. through this opening.

From 1921 to 1927 tires were cleaned by means of an oxy-illuminating gas flame. This set-up is still used occasionally by the company and a sample was taken in the breathing zone of an employee cleaning tire molds by means of this flame. After the material which consisted of rubber and talc had been burned off, the mold is brushed by means of a wire brush and steel wool. There is a 12 inch exhaust duct at the edge of the wheel, through which air is drawn at a high velocity. The sample contained 4.1 million particles of dust per cubic foot of air. The dust would consist largely of dirt and talc which had accumulated on the mold.

At the present time molds are cleaned by means of an abrasive blast using limestone. The tire mold is completely enclosed and the blast is directed through an opening 9"x18". A sample taken in the breathing zone of an operator cleaning a standard mold contained 1.2 million particles of dust per cubic foot of air. The dust would be almost 100% limestone used in the cleaning operation.

The limestone is collected in the dust arrester and re-used. A sample taken in the breathing zone of an employee bagging this sand contained 17.6 million particles of dust per cubic foot of air. Only about ten minutes

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per day is required for bagging. Under the petrographic microscope no free silica was observed in the limestone used as an abrasive. According to the file on the claim the company states that there is less than 5% silica in the limestone and the supplier of the limestone claims that there is less than 1% silica. A sample of this limestone is being sent to Lawrence Laboratory for X-Ray diffraction and analysis and their report will be made a part of the file. Occasionally deep groove molds are cleaned in which there is a back lash of dust through the opening in which the abrasive blast is directed. A higher count was obtained on this operation.

Respectfully submitted,

D. DeWitt Huffman
Safety Advisor

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