

FILE NAME: Baldwin (BALD)

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DOCUMENT DESCRIPTION: Memo with Report of Dust Count Taken in Foundry-Ohio

May 17, 1939

Mr. Theo. P. Kearns, Supt.,
Division of Safety and Hygiene
Industrial Commission of Ohio
Building

IN RE: Lima Locomotive Works
Lima, Ohio

Subject: Report of Dust Count Taken in Foundry

1. The writer accompanied by Dr. Obetz of this division, visited the above mentioned plant to make a dust count at the request of the medical department in connection with the claim of ~~XXXXXXXXXX~~.
 2. Contact was made with Mr. R. E. Mertz, Industrial Insurance Superintendent.
 3. This company manufactures railroad locomotives, steam and gas engine shovels and other types of conveying equipment. In their foundry they do work both for their own equipment and job work.
 - 4.(a) The claimant, ~~XXXXXXXXXX~~, worked in the structural shop as an electric welder. He also burned and welded with acetylene. The building in which he worked was a large structure with very high ceilings. It had a wood block floor, which when we were present, was clean. There was, in the estimation of the writer, no indication of the presence of free silica in this part of their plant. The welding rod used in his work was Lincoln Weld No. 7 manufactured by the Lincoln Electric Company of Cleveland. We have made inquiry as to the composition of the coating used on this rod.
 - 4.(b) Foundry: The foundry is located in a building about 600' x 100' x 30' to the eaves. They manufacture large iron and semi-steel castings. The core making and sand mixing is done at one end of the building. The sand is prepared in a mechanical mixer. The molding floor and cupola are located in the center of the building. The shakeout is at one end. The small brass foundry is situated in a separate room to the north side of the building. The cleaning room is located in a separate structure attached to the shakeout section of the foundry building. The sand blast is located outside of the building. Six by eight mesh gravel is used for sand blasting. This is a high silica material. Sand preparation is done near the point of shakeout. In the opinion of the writer, this is the dirtiest place as far as dust is concerned in the plant.
- A midget impinger was set up in the section of the room used as shakeout. None of the men were working at the time. The sand cutter was not in operation nor were the elevators that moved the sand in that section of the room. The sample taken with the midget impinger contained 16 million particles of dust per cubic foot of air.
5. A great portion of the casting done in this plant is in dry molds, a molder forms the piece in a flask, sets his sand and then the flask and mold is taken to the dryer where it is hardened at a temperature above 500° F. When the molten metal is poured into this flask it dries the sand still further so that when the sand is removed from the casting at the shakeout it is thoroly dry.

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6. It is recommended that the men working at the sand sifter and those working in the shakeout area be furnished with Bureau of Mines Approved Respirators. It is also recommended that the men operating the sand blast be furnished an outside air type of mask or helmet.

Respectfully submitted,

L. Merritt
Safety Engineer

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