

From the Director of Health and Safety
Lead Industries Association, Inc.
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New York 17, N. Y.



Look Ahead with Lead

December 4, 1964

LEAD ENGINEER AND SAFETY BULLETIN
No. 112

To Members of the Lead Industries Association, Inc.:

"SILICOSIS IN THE METAL MINING INDUSTRY"

The Public Health Service of the U. S. Department of Health, Education and Welfare and the Bureau of Mines of the U. S. Department of the Interior have cooperated in a three-year study of 67 mines in this country, 22 of which were lead-zinc-silver mines. Medical examinations of employees and measurements of the air-borne dust concentrations were made and the results recorded. We think many of our members would be interested in reading this evaluation which has recently been printed.*

Of interest to us here are the comments made and the results listed regarding the present-day prevalence of lead poisoning among miners in the lead mines. No medical examinations for lead were made but each employee was questioned concerning his medical experience with lead and these results are quite interesting. A total of 26 men had suffered lead poisoning out of 4,281 employees. This represents a prevalence of 0.7% which is in sharp contrast with the prevalence of 14% of the Utah metal miners reported in a previous survey conducted in 1939.

For your interest we quote the complete section from this USPHS publication.

"History of Lead Poisoning"

A past history of lead poisoning was reported by 82 metal mine workers. Further examination of the records of these men indicated that for 21, the lead poisoning episode had occurred at a time when they were not employed in metal mining. Tasks mentioned included spraying orchards, painting, making storage batteries, and welding and cleaning gasoline tanks.

The remaining 61 men had suffered from lead poisoning while employed at metal mines. This constituted a prevalence of 0.4 percent of workers at all mines. If only men working at mines which were producing lead when the present study was made are considered, there were found to be 26 men who reported having had lead poisoning at some time in their past experience. This represents a prevalence of 0.7 percent as contrasted with 14 percent of the Utah metal miners who reported a history of lead poisoning when surveyed in 1939. Among 254 Utah metal miners examined in 1958, just 1 man reported ever having had lead poisoning. If the 1939 rate had continued the expected number of men with lead poisoning would have been 36. The great decrease in percent of men affected can be attributed to many factors, among which might be a change in the proportion of lead ores mined (More sulfide and less carbonate ore, which is more likely to cause lead poisoning).

* "Silicosis in the Metal Mining Industry -- A Reevaluation, 1958-1961"
U. S. Department of Health, Education, and Welfare, Public Health Service
Publication No. 1076. (For sale by Superintendent of Documents, Washington,
D.C. 20402 - Price \$1.25)

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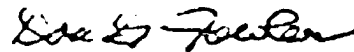
The following tabulation shows the year when the last attack of lead poisoning occurred among the men questioned in the survey.

Year of last lead poisoning	Number of men
Before 1935	7
1935-1944	11
1945-1954	22
1955 and later	10
Unknown date	11
Total	<u>61</u>

These figures indicate that, although lead poisoning among miners is becoming increasingly rare, there are still cases which have developed within the past few years. Almost two-thirds of the mines studied revealed no workers with a history of lead poisoning. Only four mines reported more than three cases. The greatest number occurring at any one mine was eight cases.

The majority of attacks of lead poisoning in recent years had occurred at the same mine where the miner was working at the time of the medical examination. Attacks in earlier years had usually taken place at a mine other than that at which the worker was currently employed."

Very truly yours,



Don G. Fowler

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