

REPORT ON
CONCENTRATION OF LEAD IN THE BLOOD AND URINE OF EMPLOYEES OF THE
SCHAIBLE COMPANY FOUNDRY, COOK STREET, CINCINNATI, OHIO

This report is to be appended to that of Mr. Cholak describing the current study of atmospheric pollution at the plant.

Due to the reported illness of approximately twenty employees during the two-week period from October 27 to November 7, it was recommended that some information regarding the lead absorption of at least some of these persons be collected. While the reported symptoms were suggestive of the condition known as "brass chills" or metal fume fever, it is recognized that the results of the absorption of hazardous amounts of lead are sometimes masked by these acute symptoms. Accordingly, it was arranged to collect specimens of blood and urine for lead determination at the plant at the end of the workday on Friday, November 14. Eight employees representing several job classifications, presented themselves. With the one exception of Bea Landin, a female core maker, all had symptoms thought to be metal fume fever at some time during the two-week period prior to testing. One of the group, Robert Klass, a molder, visited the plant medical consultant, Dr. Samuel W. Bell, for treatment; the others reported symptoms of briefer duration or lesser severity, not requiring medical attention.

The results on the blood specimens show that the exposure to lead within this group has been quite variable. The two women [REDACTED] and [REDACTED] have had no demonstrable exposure. Four men ([REDACTED] and [REDACTED]) have not been exposed to a hazardous condition of lead contact recently. Two of the men, a metal pourer, [REDACTED] and a furnace charger, [REDACTED] have been subjected to hazardous lead exposure and might be

expected to develop symptoms of lead poisoning at any time if their exposure continues unabated.

The urinary findings conform generally with those of the blood except in the case of [REDACTED]. The presence of a normal concentration of lead in the urine specimen is probably a matter of pure chance, and it does not detract anything from the serious significance of the high lead concentration in the blood of this man.

Taken together, these data confirm the suspicion that some of the workmen, while affected by the common and distressing condition of metal fume fever, have been approaching the much more serious and potentially disabling disease of lead poisoning. In order to assess the extent of hazardous lead absorption among the entire working group, it is recommended that all of the men regularly at work on the furnaces, ladles, and shake-out machines have lead determinations of blood and urine. [REDACTED] together with any others who may have evidence of similarly hazardous degrees of lead absorption, should have a thorough physical examination for the purpose of detecting early signs of frank poisoning, and should be kept under continued medical observation until it is clear that further increase in lead concentrations are not occurring.

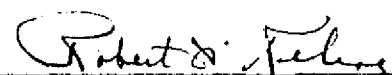
Evaluation of the environmental factors giving rise to this situation is being made by the engineering staff, along with recommendations for their control.

From the Kettering Laboratory in the Department of
Preventive Medicine and Industrial Health, College of Medicine,
University of Cincinnati, Cincinnati, Ohio

Report by:

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Approved:


Robert A. Kehoe, M.D.
Director

Date: December 1, 1952

Source: Employees of Schaible Company, 2620 Cook Street, Cincinnati,
 Material: Urine and Blood
 Submitted: 11-15-52 by Dr. James P. Hughes
 Required: Lead Analyses

Name	Occupation	URINE			BLOOD		
		Analysis Number	Specific Gravity	Mg. Pb/Liter	Analysis Number	Spectrographi Weight Grams	Mg. Pb 100 g.
[REDACTED]	Molder	52A-7766	1.025	0.10	52A-7772	16.3	0.06
[REDACTED]	Asst. Foreman	52A-7767	1.009	0.05	52A-7773	17.0	0.07
[REDACTED]	Core Maker				52A-7774	16.5	0.04
[REDACTED]	Molder	52A-7768	*	0.10	52A-7775	20.5	0.06
[REDACTED]	Core Maker				52A-7776	19.2	0.04
[REDACTED]	Furnace Charger	52A-7770	1.026	0.05	52A-7777		
[REDACTED]	Metal Pourer	52A-7769	1.024	0.17	52A-7778	16.7	0.19
[REDACTED]	Furnace Tender	52A-7771	1.010	0.04	52A-7779	11.3	0.08

* Insufficient Quantity

** Both analyses run from the same sample.

Samples Collected: 11

Samples Received: 11