

DEPARTMENT OF LABOR

DIVISION OF INDUSTRIAL HYGIENE

80 CENTRE STREET
NEW YORK 13, N. Y.

ADDRESS REPLY TO:

January 13, 1964

REFER TO:

Dr. Wm. Weingarten
Medical Department
Nassau Smelting and Refining Co., Inc.
1 Nassau Place
Tohenville 7, Staten Island, New York

Dear Dr. Weingarten:

This is to inform you of the laboratory results obtained during a recent medical study of the lead exposed workers at the above plant which was conducted by members of my staff.

Attached you will find a list of the results of the blood and urine lead determinations and the urinary coproporphyrins.

The currently accepted maximum values for blood and urine lead in lead exposed workers are 0.080 mg/100 Gm and 0.200 mg/L respectively.

It is noteworthy that all but one of the elevated blood and urine levels were found in workers from 2 specific areas of the plant, namely, the cable stripping and the white metal departments, with the majority of these occurring in the cable stripping operators. These results are consistent with the elevated lead in air levels which were found to exist in these areas.

The following are the results of air tests taken in the various areas of the plant:

White Metal Building	mg. Pb/M ³
General air	0.1
Slag removed operation	6.5 ✓
Molten metal pouring	1.0 ✓
Die Casting	0.07 ✓
Travelling grate - cable sweating	0.3 ✓
Splice cutting	0.8
Cable Stripping	2.7 ✓
The accepted threshold limit value for lead in air is 0.2 mg/M ³ .	

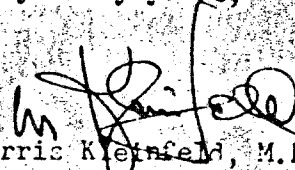
On the basis of the above, I have the following recommendations:

1. All individuals showing elevated blood lead levels should be removed from further exposure to lead until such time as their levels return to normal.
2. All individuals showing elevated urine lead levels without elevated blood lead levels should be followed closely with repeated blood and urine lead determinations.
3. The medical control program should be expanded to include periodic blood and urine lead determinations on all workers exposed to lead. The frequency with which these tests should be performed will vary according to the degree of lead exposure in any one work situation and on the clinical appraisal of the worker.

It is understood that a medical control program must be accompanied by an effective environmental control program with its major emphasis on reducing the exposure wherever possible.

I hope this information will be useful to you. If I can be of further help, please do not hesitate to let me know.

Very truly yours,


Morris Kleinfeld, M.D.
Director

KE 0018720

0.08

0.2

Name

Clock No.

Blood Lead
mg/100 gmUrinary
Coproporphyrin24 Hr. Urine
Lead
mg/Liter

[REDACTED]	273	0.0650	neg.	0.120
[REDACTED]	434	0.0472	neg.	0.080
[REDACTED]	566	0.0586	neg.	0.085
[REDACTED]	663	0.0490	neg.	0.130
[REDACTED]	243	0.0319	neg.	0.025
[REDACTED]	668	0.0690	++	0.110
[REDACTED]	676	0.0418	neg.	0.037
[REDACTED] ✓	610	0.0650	++	0.330
[REDACTED]	129	0.0710	neg.	0.195
[REDACTED]	304	0.0568	neg.	0.130
[REDACTED]	386	0.0630	no spec.	0.070
[REDACTED] ✓	547	0.0550	neg.	0.200
[REDACTED] ✓	618	0.0790	neg.	0.210
[REDACTED]	251	0.0582	neg.	0.014
[REDACTED] ✓ N	445	0.0457	neg.	0.003
[REDACTED]	713	0.0529	neg.	0.150
[REDACTED]	259	0.0598	neg.	0.070
[REDACTED]	352	0.0558	neg.	0.043
[REDACTED]	625	0.0620	neg.	0.045
[REDACTED]	297	0.0620	neg.	0.105
[REDACTED] ✓	019	0.0817	neg.	0.164
[REDACTED]	675	0.0725	+	0.085
[REDACTED] ✓	640	0.1410	+	0.122

KE 0018721

N19727.01

472	0.2090	—	neg.	0.365
563	0.0750	—	neg.	0.210
647	0.0320	—	neg.	0.124
367	0.0910	—	neg.	0.555
602	0.0807	—	neg.	0.155
176	0.0942	—	+	0.130
551	0.1072	—	neg.	no spec.
278	0.0815	—	neg.	0.035
262	0.0931	—	++	0.490
232	0.0542	—	neg.	no spec.
179	0.0342	—	neg.	no spec.
413	0.0597	—	neg.	no spec.
402	0.0463	—	neg.	0.070
450	0.0496	—	neg.	no spec.
681	0.0530	—	neg.	no spec.
383	0.0602	—	neg.	no spec.
320	0.0589	—	neg.	no spec.
289	0.0407	—	neg.	no spec.
203	0.0599	—	neg.	no spec.
128	0.0454	—	neg.	0.075
731	0.0504	—	neg.	no spec.
258	0.0761	—	neg.	no spec.
231	0.0633	—	neg.	no spec.
524	0.0601	—	no spec.	0.050
603	0.0526	—	neg.	0.025
132	0.0376	—	neg.	—
133	0.0487	—	+	0.130
778	no spec.	—	—	0.082
687	no spec.	—	—	0.220

KE 001872-2