

STATE OF NEW YORK
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 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 .	

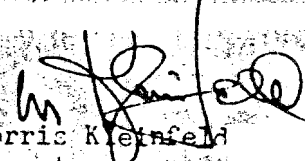
On the basis of the above, I have the following recommendations:

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 out 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 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
Director

0.08

0.2

Name

Clock No.

Blood Lead
mg/100 gm

Urinary
Coproporphyrin

24 Hr. Urine
Lead
mg/Liter

273

0.0650

neg.

0.120

434

0.0472

neg.

0.080

566

0.0586

neg.

0.085

663

0.0490

neg.

0.130

243

0.0319

neg.

0.025

668

0.0690

++

0.110

676

0.0418

neg.

0.037

610

129

304

386

0.0630

no spec.

0.070

713

0.0

259

0.0598

neg.

0.070

352

0.0558

neg.

0.043

625

0.0620

neg.

0.045

297

0.0620

neg.

0.105

019

0.0817

neg.

0.164

675

0.0725

+

0.085

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