

Informal Meeting
12/9/1966

Lead Industries Association, Inc.

202 MADISON AVENUE
NEW YORK, N. Y. 10017
AREA CODE 212
ON 2-0000

DR. H. B. STRAUSS, President
ROBERT H. BORDINA, Vice President
JAMES W. GILFILLAN, Vice President
R. A. WATKINS, Vice President
ROBERT L. LINDLEY, President
Executive Vice President and Treasurer
DAVID H. BORDINA
Secretary and Assistant Treasurer

Informal Meeting of Pennsylvania Members and LIA's Committee on Health and Safety

New York, New York

December 9, 1966

The following persons were present at an informal meeting of the Pennsylvania members and the Health and Safety Committee of the Lead Industries Association:

Present

J. Bers
P. Coppersmith
D. Diggs
H. Hesselberg
W. Mann
W. Pallies
J. Sevrick
J. Snyder
A. Spits
C. Welch
D. Ziegler

Representing

Bers & Company
National Lead Company
E. I. du Pont de Nemours & Company
Ethyl Corporation
National Lead Company
Electric Storage Battery Company
St. Joseph Lead Company
Electric Storage Battery Company
Bers & Company
E. I. du Pont de Nemours & Company
C & D Batteries

Staff

J. L. Kimberley, Executive Vice President
D. M. Bordin, Secretary and Treasurer
D. C. Fowler, Director, Health and Safety
J. C. Roumas, Assistant Director, Health and Safety

Mr. Kimberley served as chairman. The purpose of this meeting was to discuss the course of action to be taken by the LIA and its Pennsylvania members as a result of the acceptance for public hearing by the Pennsylvania Air Pollution Control Commission of an ambient air quality criterion for lead of 5 micrograms per cubic meter of air averaged over a 30-day period. While this is a Pennsylvania situation for the present, it is possible that whatever happens in Pennsylvania could set a precedent for action in other states.



Lead Ahead with Lead

EIA11943

(2)

The Committee reviewed a statement prepared by the Pennsylvania Air Pollution Control Commission on the reasons for the establishment of a maximum of 5 micrograms of lead per cubic meter of air averaged over 30 days pointing out that it is based on published works of Dr. Kehoe and his statement before the Muskie Committee Hearings last summer.

The statement in essence reports that Dr. Kehoe stated that a total of 0.5 mg/day of lead can be ingested regularly without any risk, so long as there is no significant increase in the intake of lead from the atmosphere. Somewhat less than 10 percent of that ingested (swallowed) and somewhat less than 50 percent of that inhaled is absorbed.

Using these and other figures testified to by Dr. Kehoe, the Commission apparently calculated that about 0.08 mg Pb/day can be absorbed without harm, as shown below:

0.5 mg Pb/day can be ingested

10% of ingested Pb can be absorbed - 0.05 mg Pb/day absorbed
from atmosphere - 0.03 mg Pb/day absorbed

Total - 0.08 mg Pb/day absorbed

Since the mean daily quantity of lead ingested with food and drink is approximately 0.3 mg/day, the average amount of lead absorbed from ingestion is about 0.03 mg/day. This leaves about 0.05 mg/day permissible absorption from the air to reach the total allowable absorbed dose of 0.08 mg Pb/day.

from food and drink - 0.03 mg Pb/day absorbed
50% of Pb inhaled is absorbed - 0.05 mg Pb/day absorbed

Total - 0.08 mg Pb/day absorbed

The proposed Pennsylvania standard is based on the above 50% absorption figure (resulting in a figure of .1 mg Pb/day inhaled) and a daily respiration rate of 20 M³ as follows:

20 M³/day - breathes

$$\frac{0.10 \text{ mg}}{20 \text{ M}^3/\text{day}} = 0.005 \text{ mg Pb/M}^3$$

or
5 $\mu\text{g Pb/M}^3$

It was noted that Dr. Kehoe feels that the rate of 20 M³/day is too high. He has used 15 M³/day as the rate for the average working man. It was also noted that Dr. Kehoe has stated that his statement of "less than 50% absorbed" doesn't really mean absorbed but means the amount coming out of the body as compared to the amount going in.

(3)

Dr. Diggs reported on the findings of research by du Pont which showed the following total inspired figures, with a maximum of approximately 15 M³/day (these are total figures as opposed to rate):

Work:

Total amount - 4½ to 7 M³/day depending on degree of activity

Sleep:

2 - 2½ M³/day

Other:

2½ - 5 M³/day for remaining 8 hours

Following discussion, it was the consensus of the group that it would be desirable to have:

1. Dr. Kahoe appear before the Pennsylvania Air Pollution Commission to refute if possible the method used to calculate the proposed criteria for lead.
2. All lead companies in Pennsylvania should be present at the hearings, and if in agreement should indicate support for Dr. Kahoe at the hearing.
3. A subcommittee comprised of Messrs. Hesselberg, Diggs & Fowler should discuss the problem in advance with Dr. Kahoe and report back through the LIA.
4. Dr. Kahoe, in advance of the hearings, should have informal discussions with Mr. Sussman, Dr. Brandt, & Dr. Schreck. It was suggested that he approach Mr. Sussman first and arrange for an informal meeting with all three.

J C Rousas
James C. Rousas

JCR/jv