

September 20, 1954

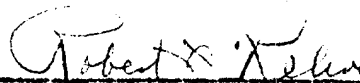
Mr. A. J. Baldwin
Mr. L. R. Fleck
Ethyl Corporation
100 Park Avenue
New York City 17

Gentlemen:

The further analytical report attached hereto seems to add to the mystery of this situation, which now requires some further examination.

You will hear from us later. Meanwhile, if you find any further evidence that bears on the situation, please let me have it.

Sincerely yours,


Robert A. Kehoe, M. D.

RAK ef

Enc.

KE 001047a

INTERPRETATION

The analytical results obtained by the procedure described on the attached report are, to say the least, surprising. It will be noted with satisfaction, however, that they confirm the observations made in the field, and that this hose is significantly and dangerously contaminated, on its inside, by tetraethyl lead.

It seems evident that the prior analyses made in this Laboratory on the lead content of the hose failed to portray the entire situation, and that this hose (both lengths of it) is much more heavily contaminated with tetraethyl lead at some point or points than our previous analyses indicated. Only by relatively great and spotty contamination, it seems, could the air flowing through it become as contaminated with volatile lead as it was found to be. For this reason the hose will be cut longitudinally and its inner surface inspected, in the hope of finding the source or sources of vaporization of tetraethyl lead with the air stream.

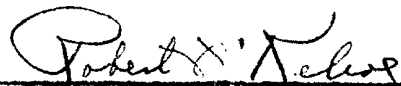
Our calculations show that approximately one third of all of the volatile lead contained in the hose (assuming that all of that disclosed by our previous analyses was on the inner surface of the 15.25 foot length) was given up to the 40 cubic feet of air passed through it and subjected to analysis. Washing out the hose reduced the available volatile lead, but only by less than 50 per cent.

The facts with reference to the 23 foot (plus) length of hose and its content of volatile lead differed little from those of the 15.25 foot length, and thus it seems that both lengths of hose were contaminated to about the same extent with tetraethyl lead. Its internal contamination with inorganic lead was appreciably less than that of the other length.

In contradiction of the interpretations arrived at in a previous report, it must be said from the present results, (1) that this hose is contaminated with tetraethyl lead on its inner surface to a potentially dangerous extent, and (2) that no practical method suggests itself for cleaning up such hose, so as to render it suitable for further use.

Because of the importance of this matter, the hose lines will be investigated further, so as to establish, if possible, the distribution of the contamination on its inner surface.

Signed:


Robert A. Kehoe, M. D.

September 18, 1954

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