

ETHYL GASOLINE CORPORATION

MANUFACTURING AND TRAFFIC DEPARTMENT

J. H. SCHAEFER,
GENERAL MANAGER.

PLEASE ADDRESS REPLY
TO: CHRYSLER BUILDING
405 LEXINGTON AVE., NEW YORK CITY

November 25, 1940

Dr. Willard Machle
College of Medicine
University of Cincinnati
Eden & Bethesda Avenues
Cincinnati, Ohio

Dear Dr. Machle:

Thank you very much for your
letter of November 18 in regard to the
cleaning of Ethyl Fluid tank car EBAX-302.

I would indeed appreciate it if
the next time you are in the vicinity of
Wilmington you would discuss this matter
with Mr. Wasserman at our Deepwater office.

Very truly yours,


J. H. Schaefer

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November 18, 1940

Mr. J. H. Schaefer
Ethyl Gasoline Corporation
Chrysler Building
New York, New York

Dear John:

In connection with the cleaning of Ethyl Fluid tank car EBAX-302, I gather that you are attempting to obtain conditions within the car that will make it possible for men to work without the use of air-line respirators. This would be an ideal set of circumstances, but one questions whether it is feasible of accomplishment.

The analytical figures that you give indicate that washing and aeration will effectively reduce the amount of lead vapor in the air, but one always has to consider the possible liberation or exposure to tetraethyl lead or its products when work is actually begun. The little experience that we have had with parts removed from weigh tanks indicates that the application of acid, bromine and the like, will make a very effective coating over lead deposits, but they will not penetrate them to the metal beneath, and accordingly when the surface is disturbed, the process has to be repeated. To see whether any situation such as the above obtains in the seams or irregularities on the inside of the tank car, it might be worth your while to aerate at a constant rate until the air analyses show a uniform result. Then the interior of the tank car could be disturbed by hammering or scraping along the bottom and the aeration procedure then repeated to determine whether or not there is any increase in the evolution of lead vapor.

It strikes me that if time is any consideration in this operation, that there is a practical limit to which you can go in attempting to make the car lead-free. When that point is reached, it would seem desirable to have the work carried out with the use of clothing and air-line respirators, particularly since these will protect the workmen against any chance exposure which may come about from uncovering deposits.

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Mr. John Schaefer - (2) - November 18, 1940

The variation and inconsistency in the analytical results that you mention is interesting. It could come about of course by channeling of the air-flow within the tank car, by alteration in the state of the lead deposits with time, and of course by changes in temperature, and need not necessarily have been due to error in the analytical method. However, it does seem quite logical that you should be satisfied as to the accuracy of the analytical method, if you are going to use the results of the method to determine whether or not it is safe for men to work in the tank car.

I expect to be in Wilmington the latter part of this month or the early part of December and will take advantage of the opportunity to look over the tank car in question while I am there.

Cordially,

WM:vr

Willard Machie, M.D.

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