

November 18, 1940

Dr. M. N. Newquist
Texas Company
135 E. 42nd Street
New York, New York

Dear Doctor Newquist:

Dr. Kehoe is out of the laboratory and will not return soon, and I am accordingly replying to your letter of November 1.

We are happy to know that the tank cleaning study was of interest to you and we welcome any comments or inquiries that you may wish to offer on the subject matter or conclusions. In so far as the hazard from organic lead in tank cars is concerned, all of our experience indicates that it does not exist. This was one of the reasons that our information on them was not included in the report. We have over a period of years obtained a number of samples of sludge from tank cars and have subjected them to the same analytical procedure as was applied in the case of sludge from tanks. In no instance was the concentration of organic lead of such order of magnitude as to suggest a hazard from that source. We can only conjecture upon the reasons for this, possibly agitation, frequent change of product and the short stay of any batch of gasoline in a tank car may be factors to explain these low levels. The same results were obtained from recent tank wagon samples. Our opinion, therefore, is essentially unchanged in so far as the hazard from tank cars is concerned. We do not believe that the lead hazard need be considered except in those very rare instances where tank cars may have been used for blending or where they are permitted to function for a period of years as tanks, that is to say, not to be used for the haulage of gasoline, but serve unmoved as distributing or track-side tanks. In these cases they would of course be functionally a tank rather than a tank car.

In connection with blending into tank cars we did

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have one or two samples from tank cars that had been blended into and in the sludge of which significant amounts of lead were found. Blending into tank cars was, we believe, an extremely rare practice, even some years ago before our methods of control were developed to their present state and to the best of our knowledge, it is now non-existent, so that the possibility of hazard from this source need no longer be considered.

You may be interested in knowing that some recent samples that we obtained from filling station tanks contained amounts of organic lead in the sludge comparable to those found in larger tanks. We do not believe that these filling station tanks constitute a hazard from the point of view of cleaning as they are not entered, nor would the cleaning operation occupy a sufficient length of time in most instances to bring about serious conditions of exposure for the men concerned, but the results do bear out one conclusion in the report, namely, that size of tank is no influence upon the amounts of lead (in terms of percentage) that may be deposited in them, and they further make it imperative that old filling station tanks that are intended to be junked, not be used for the storage of foodstuffs or water.

With best regards, I am

Very truly yours,

WM:vr

Willard Machle, M. D.

cc - Mr. Harry Kaley

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