May 19, 1932

Mr. Paul A. Gross
Production Manager
California Chemical Corporation
Newark, California

Dear Sir:

Allow me to thank you for your further information on your employee who became ill while steaming out a barrel which was sent to you by the Ethyl Gasoline Corporation.

The methods of treatment in Tetra-Ethyl lead poisoning are by no means satisfactory. Doubtless you know that many of the cases of acute poisoning have succumbed as a result of a very intractible encephalitis. The only instance in which an apparent cure was obtained was one in which the diagnosis was a little doubtful but in which a reasonable certainty of Tetra-Ethyl lead as a contributing factor at least existed. In this case, the use of hypertonic saline solutions intravenously coupled with administration of saline cathartics and hydrotherapy, resulted in recovery. In such acute cases I give large doses of mixed alkaline salts together with large quantities of water and fruit juices, and just as rapidly as possible put the patient on full diet. I avoid the use of sedatives scrupulously in spite of severe insomnia, and in no case do I permit the use of any morphine. The mixture of salts employed was as follows:

Sodium bicarbonate - - - 4 parts
Calcium carbonate - - - 1 part
magnesium oxide - - - - 1 part

These materials are thoroughly mixed dry and administered in half teaspoonful to full teaspoonful twice to three times a day as required.to produce and maintain a neutrality of the urine. On this regime patients recover their appetite rapidly and out of forty some odd cases so treated, no one of them developed acute symptoms.

This is all that I can give you on the matter though I should perhaps warn against one item of treatment which is used by some medical men at the present time. I do not think it advisable to attempt any measures which

will increase the rate of lead elimination from the body. Our observations indicate that lead is fairly rapidly excreted from the body without aid, whereas attempts to eliminate it rapidly are sometimes productive of acute symptoms. I have followed a consistent policy of trying to get the individual into as nearly normal a state as possible, leaving the lead to eliminate itself.

You will probably see from the above paragraphs that the treatment of Tetra-Ethyl lead poisoning is not very satisfactory. As a matter of fact, it seems quite clear that the only successful treatment up to the present consists in the prevention of significant exposure.

Very truly yours,

RAK:IS