L. A. ST. JOHN, M. D.
25 CHARTER OAK AVENUE
HARTFORD, - CONNECTICUT

September 29, 1932.

Standard Oil Company of N. Y.
Personel - Safety Dept.
Medical Section
112 State Street
Albany, N Y.

RE: [redacted]

Gentlemen:

The following is a report to date on the above cases of Ethyl Lead Poisoning that occurred at the Hartford Plant September 10th, 1932.

HISTORY:

The three men were assigned to clean an Ethyl Lead Tank. For two days they worked with a mask, the three going in and working in relays. On the third day, September 9th, they went in together without a mask due to the fact, as they claim, that the air tube was not sufficiently long to reach the center of the tank. They remained inside for a period of ninety minutes when they were forced to come out because of feeling "dizzy." DiBernard, who was in charge of the job, allowed [redacted] and [redacted] to go home a little earlier than quitting time because, as he put it, "we were all dizzy and sick".

September 10th, the three men returned to work after putting in a sick night complaining of restlessness, insomnia, dizziness, vomiting and diarrhea. They were forced to quit work on September 10th at 10 o'clock A.M. and the three reported to my office for examination. Their symptoms were as follows:

(1) dizziness ✓
(2) insomnia ✓
(3) Vomiting ✓
(4) muscle pains
(5) diarrhea ✓
(6) weakness ✓
(7) excitation ✓

Their physical examinations at this time revealed nothing unusual. I concluded from the history and findings therefore that these men were suffering from mild gasoline poisoning from the fumes present in the tank and after assuring them that their cases were not serious, ordered them home. I prescribed cathartics (Epsom Salts) for their diarrhea and cramps, and a sedative for their excitation as all of them seemed to be considerably nervous and frightened. They seemed

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to know and fear that the fumes of Ethyl Lead were deadly poisonous. In fact, I had considerable difficulty in assuring them that I believed their symptoms were due to mild gasoline poisoning and not lead. I asked them to call me the following day if they still felt sick and dizzy.

September 11th - [redacted] and [redacted] both put in house calls which I made about 5 o'clock P.M. I found them up and about at home, They had not slept that night and they could not keep down food. They were very much excited, especially [redacted] who felt positive he was going to "die". He had read somewhere about the danger of lead poisoning. I realized now that I was dealing with something more than ordinary "gasoline fume poisoning" and ordered the men to the hospital for treatment and observation. [redacted] in the meanwhile was similarly affected. He lives in New Br[redacted] miles from Hartford) and consequently called in his family physician who likewise ordered him to the hospital. (New Britain General Hospital.)

September 11th to 17th inclusive. Under observation at St. Frances Hospital. During first three days stay in the hospital they continued to vomit their food, only in the A.M. however. Pain in abdomen, chest, muscle cramps, etc. They were in a constant state of excitation and could not sleep. They continually talked of being "done for" etc., and of "going to die", in spite of all the sedatives I could administer them. (120 grains of sodium bromide and 9 grains of sodium Amytol at bedtime.)

After the third day the nausea and vomiting left but the insomnia and fear of death persisted. It was most distressing and annoying and it was evident that they were beginning to feel the effects of the loss of sleep. They remained at the hospital until the 17th of September when they insisted on going home. They felt that the hospital was "getting on their nerves" and that if they were home with their families they would "feel better"; also they wanted to be out in the air and exercise in order to "tire out" so that they might get some sleep. Realizing that the change and moderate exercise might help them to sleep I discharged them.

September 17th to September 22nd, inclusive. During the above dates [redacted] and [redacted] were under my close observation. The other man, [redacted] was still hospitalized in New Britain under both the care of Dr. George Dunn of New Britain and myself. (I will give you his report in detail separately later.) During these dates I visited both [redacted] and [redacted] at least twice daily and sometimes three times. As previously explained, the chief and most annoying and persistant symptom was insomnia. The others, weakness, nervousness and muscle pains etc., which were due to the lack of sleep and proper rest, were becoming more marked in both these cases. Medication the the meanwhile gave no relief. It was evident that they were not getting better and were, if anything, getting worse.

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On September 18th, Dr. Willard Machle who is from Cincinnati and is connected with the Ethyl Corporation of America, was sent to me by the Standard Oil Company of New York to help and suggest the treatment of these cases. Dr. Machle and I carefully re-examined the three men. As on the previous examination the physical signs were not remarkable and that there were very few abnormal findings. They were as follows:

(1) muscle weakness
(2) slightly exaggerated reflexes
(3) low blood pressure (in Bonini's case only)

The symptoms were:

(1) weakness
(2) excitability and nervousness
(3) insomnia

Dr. Machle and I discussed these cases thoroughly. He has had considerable experience with Tetra Lead Poisoning. He instructed me as to his method of treatment and advised me that my cases were typical although mild of Tetra Lead Poisoning; that the insomnia is one of the first symptoms to appear and a very significant one in making a diagnosis; that it is the factor that causes the muscle weakness, nervousness and excitability in these types of cases; and that sedatives and drugs commonly used to produce sleep are of no avail. He also outlined a course of treatment that he has successfully used in the treatment of such cases.

September 18th to September 27th inclusive.

With this method of treatment, Bonini and Zeboski responded very well. [redacted] is practically ready to return to light work, probably about October 3rd. [redacted] although over his illness is still weak and probably will not be able to return to work before the middle of October. [redacted], however, failed to react favorably. He was the most nervous and excitable of the three throughout the whole course. On September 22, 1932, he suddenly became mentally unbalanced. I received a hurry call to his home at 1:30 A.M. and found him in a maniacal stage. It required four policemen to hold him. Realizing that this was an emergency I arranged to send him to the hospital in a private room and of course a day and night nurse to keep close watch upon him. It became necessary to restrain him in bed with straps and a canvas camasole. As the situation was serious and as it was impossible to care for this man in a general hospital, Dr. Machle and I decided that he had better be moved to the Hartford Retreat (a hospital for mental cases). On September 24th we moved him to the retreat where he is now confined. A consultation there was held between Drs. St.John, Machle, Schuby, Adams and Wagner (the latter three are the hospital doctors.) It was

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finally agreed that [redacted] is probably a mental case. Just what type of insanity has not as yet been detremined. His symptoms are not very clear. At times he appears to be a Toxic Cycosis. At other times he has symptoms of a Dementia praecox. It will probably take several weeks before a definte diagnosis can be made. The laboratory work on these cases, namely, blood tests for lead stippling - haemaglobin - blood count - wasserman, etc, are all negative.

The excretions (urene and faeces) are now being put through the examination for lead. This is a process that takes from two to three weeks. I have sent specimens to Dr. Machle's laboratory in Concinnatti for these tests, as there are no laboratories in this state equipped to examine for lead; and until I receive a report I will be unable to state just what part, if any, the lead plays in [redacted] sickness. It seems to be the consensus of opinion at this writing that [redacted] is probably a mental case, not due to lead poisoning. It may, however, be necessary later on to decide whether or not his exposure to the Tetra Lead fumes was responsible to precipate his mental instability. This would be a question to be decided by psychiatrists.

SUMMARY:-

Present condition of [redacted] very satisfactory. Will return to light work on or about the 3rd of October.

Condition of [redacted] also very satisfactry. Will return to work about the middle of October.

Condition of [redacted] unsatisfactory. It begins to appear as though we are dealing with a mental abnormality, probably Dementia praecox.

All of which is respectfully submitted.

L. A. St.John, M.D.