

ETHYL ANTIKNOCK, LTD.

Dr. Sanders
N.Y. Safety

INTER-OFFICE MEMORANDUM

TO Dr. Kitzmiller - Cincinnati

DATE June 26, 1953.

FROM Ben F. Penrose - Toronto

SUBJECT

This will confirm our phone conversation of Tuesday, June 23, advising you that Mr. [REDACTED] Tank Cleaner, had complained of not feeling well since cleaning a 4,000 barrel, former blending tank, at the old Canadian Oil Co., Petrolia, Ontario, refinery.

We are attaching a copy of a report from our representative, Mr. Reny Barki.

Mr. Barki was in attendance during the entire tank cleaning job, and he assures us that all possible safety precautions were observed by men engaged in the operation.

Following our phone conversation, as instructed by you, we advised Mr. [REDACTED] to see his physician for an examination.

On June 24th, we phoned Dr. A. P. MacCallum, who is Mr. [REDACTED] physician in Petrolia. We informed Dr. MacCallum that prepared bottles with instructions were being sent to him for samples which should be forwarded to your attention. We also advised Dr. MacCallum to kindly forward his report together with his statement to your office.

It was remarked by Dr. MacCallum that he did not believe that Mr. [REDACTED] physical complaints were related to a lead toxicity.

Very truly yours,

Ben F. Penrose

Ben F. Penrose.

*per
H. Parkin*

BFP:arp
*Att.

cc: Dr. Kitzmiller ✓
Dr. Sanders
H.Y. Safety
Mr. O.B. Lewis

ETHYL ANTIKNOCK, LTD.

44 KING STREET WEST
TORONTO 1, CANADA

Mr. Ben F. Penrose - Toronto

June 24, 1953.

Mr. Reny Barki - Toronto

Late in May, we were notified of a tank to be cleaned at Canadian Oil Companies, Petrolia, by a new contractor, Mr. [REDACTED]. The tank cleaning was specifically delayed so that our representative could attend.

Our representative, Mr. Reny Barki, left for Sarnia on June 3rd, 1953, in the early a.m. and met the contractor at the tank in Petrolia at 1:00 p.m. on Wednesday, June 3rd. This tank was a 4,000 barrel vertical Refinery tank and is identified by No. 76. It had been used for some 20 years as a blending tank and had recently contained a special blend of gasoline containing 20 cc's of lead/U.S. gal. This gasoline had been shipped to the refinery at Sarnia in tank cars on or about August, 1952.

This tank had apparently been open for some six weeks prior. At the time of the removal of the manhole cover, people in the area had complained of violent sneezing. At this same time, Canadian Oil personnel had decided to drain the water from this tank through the water draw-off, and this water was left to run over the ground. We are informed that no one had entered the tank, and we received no notice of their intention to open up the tank.

Alan McCorkindale entered the tank at about 2:00 p.m. for the first entry. He came out and notified us that there was considerable water in the tank. It was decided that the easiest method of extracting water from the tank and disposing of it was to use a gathering tank which Thompson used for gathering crude oil at the various wells. It was then proposed to dump this water into underground crude storage tanks which were now out of service. The gathering tank was a 10 barrel steel drum mounted on a cart and drawn by horses, and the pumping facilities on this unit consisted of an old water lift pump.

Our representative was intrigued by this operation and started taking pictures of the pumping out operation. On proceeding unwind of the gathering tank, he detected a strong odour of fluid and directed all personnel to leave the area. He came to the conclusion that there was considerable fluid in the tank and began investigating.

The problem was discussed with Mr. Vince Norwood, Refinery Manager, and Mr. Perce Parker, Maintenance Supervisor, and we obtained permission from them to dispose of the tank sludge and remaining water by means of

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burning it (with the aid of stove oil) in a suitable location. We also obtained at this time, 2 canister masks for use in this operation.

The operation then proceeded in this manner:

1. Approximately 4 barrels of stove oil were placed in the carrying tank.
2. Water was pumped out of the tank with the pumper wearing a canister mask.
3. The contents of the carrying tank were dumped into a previously dug pit at the site of burning.
4. During the transportation of the water and stove oil, canister's masks were worn by all persons likely to be exposed to fluid vapours.
5. At the end of every day, ten barrels of stove oil were dumped in the pit and the pit set afire.

This procedure was carried out on the afternoon, Wednesday, June 3rd, part of Thursday, June 4th, (rain hampered our operations that day) and in the morning of June the 5th.

At approximately 10:30 a.m. our representative entered the tank and took a quarter sample of the atmosphere in the tank. This gave him a reading completely off the scale. He also noticed that there was considerable sludge in the bottom of the tank and that this sludge appeared to be heavily dyed and concentrated with lead. He also noticed that the sides of the tank were coated heavily with a white deposit to about 2/3 of the height of the tank. This is assumed to be lead salts from the highly leaded gasoline that the tank had contained.

At this point, our representative called his Toronto office for further advice and direction in this matter. He talked to Mr. O. B. Lewis and explained that he was seriously concerned with the hazards involved in cleaning this tank and asked for advice. He was instructed by Mr. O. B. Lewis of Toronto that it would be preferable if the sludge was removed, transported and burned using full precautions for lead vapours. As our representative had approached the problem along the same line of attack, he felt justified in proceeding and completing the job.

At noon Friday, June the 5th, all tank cleaning operations were suspended until the morning of Wednesday, June the 10th, 1953. This was done for 2 reasons:

1. Other commitments.
2. To give us a chance of observing the health of these men who had been performing this tank cleaning over the weekend.

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It should be noted that up to this time, men had been inside the tank on only three occasions and then for very short periods of time. During all outside operations, at all critical times, men were wearing canister masks.

On Monday, June 8, 1953, [REDACTED] called our office and informed Mr. O. B. Lewis that he had pains in the pit of his stomach and was not feeling well. He did not complain of lack of sleep or other symptoms. Mr. O. B. Lewis did not feel that his condition was serious and allowed the matter to wait for our representative who was to contact Mr. [REDACTED] on Wednesday.

Our representative returned to this tank cleaning on Wednesday, June the 10th, 1953, at approximately 8:30 a.m. He talked to both [REDACTED] and Alan McCorkindale and discussed their physical condition with both of them. Alan McCorkindale claimed he was feeling well, but Arnold [REDACTED] complained of a pain in the pit of his stomach. He had had no headaches, no dizzy spells, he slept well and ate well. It was our representative's opinion that his complaint was not as a result of lead intoxication, and we proceeded with the tank cleaning. For the whole day of June the 10th, and the morning of June the 11th, the following procedure was adopted:

1. [REDACTED] entered the tank and removed buckets of sludge which he passed out to Alan McCorkindale who dumped the sludge into 55 gallon drums. Arnold Thompson was wearing an air line hose mask and Alan McCorkindale a canister mask.
2. The sludge was transported on a wooden skid to the pit.
3. At the end of each day, ten barrels of stove oil were dumped in the pit, and we set fire to the pit.

At the end of the tank cleaning, the wooden skid and the drums were burned or exposed to fire.

The pit was then covered over by a bulldozer with the operator wearing a canister mask.

The end of the tank cleaning, our representative entered the tank and took a lead in air test. The reading was off the scale.

It was his recommendation that as this tank was expected to go into stove oil service, it be continued to be considered as a leaded tank for safety purposes until at least the next tank cleaning when the situation might be reviewed.

This was discussed with both Vince Norwood and Perce Parker and agreement was reached on this subject.

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In the p.m. of Friday, June the 12th, 1953, our representative contacted [redacted] to discuss his condition. Again [redacted] complained of a pain in the pit of his stomach and a slight headache, but nothing else.

On Tuesday, June 23rd, 1953, we received a telephone call from Arnold Thompson. He was complaining of the pain in the pit of his stomach. He also said he had a dull headache at the back of the head. He felt particularly sick during the evenings and felt like retching, but actually hadn't. He has been sleeping good and his appetite appears to be good though he says he does not relish his food as much as he normally does.

It is our representative's opinion that these symptoms could be caused by butterflies in his stomach since every precaution appeared to have been taken to eliminate the lead hazard as much as possible.

In view of the fact that our representative is an Engineer and not a qualified medical practitioner, this report is submitted for a more competent decision.

Very truly yours,

Reny
Reny Parki.

RB:AP

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