

Memorandum

Tank Cleaning Incident, Cape Fear Terminals, Wilmington, North Carolina.

Much of the following information was obtained from Mr. Lynch Nichol, white, foreman of the tank-cleaning crew of Tank Cleaners, Incorporated, P.O. Box 3261, Jacksonville, Florida during an interview at the George Washington Hotel, Jacksonville, Florida, June 26, 1948. The statements concerning the advice and activities of Mr. Fritz Mercer, Safety Representative, Ethyl Corporation, were corroborated by Mr. L. E. Williams, President, Tank Cleaners, Incorporated, who had talked with Mr. Mercer at the time of the tank cleaning and who was present during this part of the interview with Mr. Nichol. However, a long-distance telephone conversation with Mr. Mercer and also with Mr. Baldwin of New York, Supervisor of Safety Work for the Eastern Area of Ethyl Corporation, who was with him at the time, disclosed a direct contradiction by Mr. Mercer of the statements herein contained, and a comment that at no time was anyone advised to enter any of the tanks in question without full protective equipment. Mr. Mercer was present during the tank-cleaning operations on Wednesday, Thursday, and Friday and on Saturday until 10:00 a.m. He was absent on Monday. The relevant tank-cleaning operations were conducted for the Cape Fear Terminals, Wilmington, North Carolina. The tank-cleaning crew consisted of Mr. Lynch Nichol, foreman,

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who was undertaking this job for the first time, and two experienced negro workers, [REDACTED] and [REDACTED]. Four tanks were cleaned under the supervision of Mr. Nichol. All necessary equipment was available including proper clothing, rubber boots and gloves and an air-line respirator. Everyone concerned was familiar with the regulations governing the cleaning of tanks, which had contained leaded gasoline. Tank cleaning began Wednesday morning, June 16, 1948, and continued through Thursday, Friday, and Saturday. No work was done on Sunday, and cleaning operations were resumed on Monday. The hours of work were from 7:30 a.m. until 5:30 p.m. on Wednesday, Thursday, Friday, and Monday and from 8:00 a.m. until 2:00 p.m. on Saturday, with an hour for lunch on each of these days.

Tank #211 (40,000 barrels) that had contained leaded gasoline, was cleaned first. All precautions relating to hazards arising from lead compounds and gasoline vapor were said to have been observed. However, there could be some question as to whether or not [REDACTED] wore a respirator continuously while working in the tank, since he was observed by the foreman only upon entry and exit, and also since he was the only worker in the tank. He worked for periods of an hour or so shoveling the sludge into buckets and carrying them to the manhole where they were received by [REDACTED] and carried to the sludge pit for

disposal. This work was carried on during Wednesday and Thursday and was completed by noon on Friday. The equipment was then moved to the Carolina Terminal about 1/8 of a mile away, and preliminary work was started in preparation for the cleaning of a group of smaller tanks (12,000 barrels). These tanks had not been in service since 1943, and were empty except for the presence of a 12-inch water bottom in each tank. It was assumed that they had contained kerosene or fuel oil, and no information was available as to whether or not they had ever been in leaded gasoline service.

Mr. Nichol, the foreman, in the presence of Mr. Williams stated that Mr. Mercer had inspected these tanks and had said essentially that since there was no history of lead contamination and that since these tanks had been out of service for such a long time that it would not be necessary to wear the air-line respirator during the cleaning operations. However, as previously stated, Mr. Mercer flatly contradicted this statement in the course of a long-distance telephone conversation later the same day (Saturday, June 26, 1948), and maintained that he had said that all safety precautions should be followed, since no accurate history could be obtained with reference to the likelihood of lead contamination in these tanks.

The water bottom of Tank #1 was pumped out on Friday

(2 to 5 p.m.) afternoon and Davis worked in the tank for 4 or 5 hours on Saturday without the respirator. Cleaning activities were resumed on Monday by [REDACTED] who wore boots and gloves, as well as proper clothing, but who did not use the air-line mask. Less than an hour before quitting time the foreman entered Tank A and noticed a peculiar odor suggesting but not entirely characteristic of T.E.L. fumes. He advised against further cleaning operations without the respirator. However, the cleaning of this tank had been almost completed at this time by [REDACTED], who had been working in the tank for an hour or so.

The cleaning of Tank #1 had been completed and Tank #2 and Tank A were cleaned on Monday. Work in these tanks was also carried out without a respirator. [REDACTED] complained of not feeling well Monday night. His chief symptoms were nausea, and colicky pain in the abdomen. He consulted a local physician, who advised an immediate appendectomy.

[REDACTED] was not willing to submit to an operation and upon his request was permitted to leave by bus for Jacksonville. The trip was made on Tuesday. He consulted Dr. John H. Mitchell, 241 W. Ashley Street (Telephone 4-4531), physician for Tank Cleaners, Incorporated, Jacksonville, Florida. He was admitted to the Brewster Hospital of that city on Wednesday, June 23, completely disoriented and exhibiting spasmodic involuntary, uncoordinated movements of the musculature of the head, body, and extremities. A transcript

of the clinical record of the hospital will be attached to this report. The condition of [REDACTED] became progressively more serious. He lapsed into coma soon after admission and died suddenly at 3:35 a.m. on Saturday, June 26, 1948. An autopsy was performed on the same day at 1:45 p.m. by the resident pathologist, Dr. Leavitt. Suitable specimens were obtained for microscopic examination and quantitative lead analyses.

[REDACTED], the other member of the cleaning crew, was seen by me for the first time at the George Washington Hotel, Jacksonville, Florida in the late afternoon of Saturday, June 26, 1948. He was interviewed concerning his work as tank cleaner and examined at this time. He had not felt well on Wednesday (June 23, 1948), and after completing the day's work at the Carolina Terminal, Wilmington, North Carolina, he boarded a bus that evening and arrived in Jacksonville Thursday evening, where he consulted Dr. John Mitchell. He stated that he felt all right at present, though he had been quite disturbed Saturday morning upon hearing of the death of [REDACTED]. He was quite rational throughout the interview, though depressed and slightly apprehensive. He cooperated readily during the subsequent physical examination and collections of samples of blood and urine for quantitative lead analyses. He asserted that his principal job was that of assistant to [REDACTED], that he seldom entered a tank before it had been

cleaned and then only to mop up water from the tank bottom. At these times he wore coveralls, rubber boots and gloves, but did not wear a mask, since the tank was presumed to be free of vapor hazard. As assistant, he usually stood outside the manhole, where he received buckets of sludge from [REDACTED] and carried them to the sludge pit for disposal. He also assisted in digging the pit and burying the sludge. The history of personal exposure was vague with respect to detailed specific information, and probably not altogether accurate. The essential findings upon medical examination at this time were a slightly altered mental status, hypotension and the presence of an occasional involuntary labial tremor. He was advised to remain under the observation of Dr. Mitchell for a few days. Subsequent information disclosed the fact that [REDACTED] had been restless, apprehensive, and unable to sleep Saturday night (June 26, 1948). He became disoriented and highly agitated Sunday morning and upon the advice of Dr. Mitchell he was admitted to Brewster Hospital Sunday morning at 11:00 a.m. (June 27, 1948). His subsequent course is outlined in the clinical report. While he has been quite ill, it seems reasonably certain that he will survive.

The essential features of the verbatim account of the relevant tank-cleaning operations and of previous related activities of Mr. Lynch Nichol, foreman, are recorded below.

Twenty-four years of age and a graduate (1942) of Technical High School, Dallas, Texas, Nichol has been engaged in this work for about 20 months (1947-1948). His primary occupation has been concerned with business solicitation, acting as purchasing agent and assisting in tank-cleaning operations. The current job represented his first responsibility as foreman. He seemed to be very familiar with all of the safety regulations applicable to tank cleaning, but there may be some question as to whether or not he realized the necessity for close observation and supervision of the workmen while they were engaged in cleaning activities in the tank. He presumably had had little actual personal exposure, although he entered Tank #2 on Saturday, and Tank A on Monday for periods of 10-15 minutes over an interval of an hour or so on each day. He did not wear a mask on any of these occasions. On Tuesday, he complained of dizziness, nausea, pains in the stomach and diarrhea, and decided to return to Jacksonville for medical examination. He was replaced as foreman by George Smith and left for Jacksonville by bus Wednesday morning. Nausea, without vomiting, continued on Tuesday and Wednesday but had diminished somewhat on Thursday. The appetite was poor during this time and there was also mild insomnia with dreams concerning bus activities. He

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felt very much better on Friday and Saturday (June 25, June 26, 1948), and stated that his appetite had improved and that he was sleeping much better, although he had occasional wild dreams.

Physical examination carried out on Saturday morning was essentially non-revealing. Specimens of blood and urine were collected for quantitative lead analyses.

It seems apparent from a review of the occupational history, clinical records and available analytical data of these men that dangerous hazards existed from the vapor of T.E.L. emanating from the sludge in the smaller tanks #1, #2, and A, which were entered and cleaned without the protection of air-line respirators. Fatal T.E.L. intoxication was responsible for the death of [REDACTED], while serious intoxication accounted for the illness of [REDACTED] and relatively mild poisoning for the indisposition of Lynch Nichol.

K.V. Kitzmiller, M.D.

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