

Complaints

April 4, 1932

Mr. Ball
Superintendent
Standard Oil Refinery
Latonia, Ky.

My dear Mr. Ball:

Dr. Kitzmiller has called my attention to the intoxication of two men, [redacted] and [redacted] which resulted from the cleaning out of tanks containing gasoline fumes. As would be expected, the physical examination of these men showed no evidence of lead intoxication. The examination of their blood (microscopic) failed to show any evidence of lead absorption. Furthermore, the men had apparently recovered from the gasoline intoxication which produced their symptoms.

I do not know whether either of these men had an opportunity to absorb gasoline through the skin. They undoubtedly absorbed gasoline through the skin if the opportunity presented itself. One may be reasonably certain however, that the overwhelming proportion of their absorption results from the inhalation of gasoline vapors. The use of masks does not obliterate the likelihood of considerable inhalation of gasoline vapor for several possibilities present themselves at once in connection with these masks. In the first place, the face piece frequently leaks and even if there is only a small leak, in the presence of high concentration the amount of gasoline inhaled may easily be sufficient to produce intoxication. Thus, too, the canister becomes rather easily overloaded with absorbed gasoline after a short period of exposure and when the concentration is extremely high, this occurs more rapidly. When one is exercising vigorously, therefore, the rate of air flow through the canister may be such as to exceed the rate with which the vapor is removed. In which case some quantity of the gasoline vapor is inhaled and absorbed. You probably gather from this that I am suspicious of the use of the Bantel type of mask in dealing with strong gasoline vapors except as the most rigid inspection of the condition of the masks and of the length of their use without changing the canister, is carried out. The pressure masks in which a supply of fresh air is continually forced through the face piece, is very much safer in dealing with gasoline vapors.

Currell

I enclose, herewith, copies of Dr. Kitzmiller's report of the examinations to me. These, I believe are self-explanatory.

Very truly yours,