

Dec. 14, 1932

PLAINTIFF'S EXHIBIT

GE-142

Dr. B. L. Vosburgh,
General Electric Company,
Schenectady, N. Y.

Dear Dr. Vosburgh:

I think you can tell Mr. Doll that his last proposal, to use an alcohol denatured with 9.05 % by volume of iso-propanol will be quite safe, even if he has no artificial ventilation. You are quite right that, according to what is called Richardson's Law, the toxicity of the alcohols goes up as the series goes up, but that law has no meaning in industry. It is based on animal experiments in which the alcohols were given by intravenous injections. Macht, of Johns Hopkins repeated Richardson's work and got the same results, but when he tried to do the same by inhalation experiments he found quite different results, in fact methyl alcohol was the only one to intoxicate markedly and iso-propyl alcohol had no effect at all.

You see, in these last experiments, which are the only ones applicable to industry, Macht was testing volatility, and when one does that the series is just reversed. The higher the alcohol, the lower the volatility, so that for us it works out just the opposite of Richardson's law. The iso-propyl alcohol will not volatilize and so, industrially it is safe. As a matter of fact, we do not have any trouble with alcohols practically, except methyl alcohol, the most volatile of all.

Sincerely yours

Alice Hamilton, M.D.