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St. Louis, Missouri

January 21, 1957

Mr. H. I. Armstrong

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FYDRAUL 150

Dr. Treon and I spent an afternoon with the Navy people to discuss Fydraul 150. Those present were Captain Shone, Captain Alvis, Captain Sessions, Commander Siegel and Mr. Mickey Albert. They discussed their information concerning Fydraul 150 which was obtained at the Naval Institute of Medical Research. While reports were not available, they had the following general data:

> Skin applications of Fydraul 150 caused death in all of the rabbits tested. (The amount administered was not given.) A like amount of Cellulube 220 did not cause any deaths.
>
> The inhalation of 10 milligrams of Fydraul 150 per cubic meter or approximately 2 tenths of a part of the Arocler component per million for 24 hours a day for 90 days caused, statistically, definite liver damage. No matter how we discussed the situation, it was impossible to change their thinking that Fydraul 150 is just too toxic for use in a submarine. It may be that such concentrations would never be reached in the submarine but the Navy does not appear willing to even put the material in a trial run to see if it will work.

It would appear, therefore, that we should discontinue to sell Fydraul 150 for this particular application and try to develop a hydraulic fluid without Arocler as one of its components. In this connection, Cellulube 220 is not used in a submarine but it was used in this test merely as a yardstick.

The Navy said they did not have any competitive fluid far enough along engineering-wise to even consider the toxicity of it.

R. Emmet Kelly, M.D.

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DEFENDANT'S EXHIBIT
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