TOXICOLOGY - THERMINOL

2 PC/CC Early/[illegible]

February 4, 1966

U. S. Steel

Dr. William C. Quinn
1521 De la Chaise Street
New Orleans 15, Louisiana

Dear Dr. Quinn:

This confirms my telephone conversation with you yesterday, concerning Therminol FR-O.

As I explained to you, this is a chlorinated hydrocarbon, which has been subjected to considerable toxicological work, as well as a long history of use in the heat transfer field. I, therefore, believe we are in a position to evaluate the degree of hazard to which your maintenance workers might be exposed.

From the standpoint of acute exposure, one must consider inhalation of fumes which are evolved. When the material hits a heated surface there could be some breakdown into aldehydes, CO, and hydrochloric acid fumes. I believe these resulting products would be so obnoxious that no one would stay long enough to get a serious exposure. One could expect coughing due to bronchial irritation but, certainly, this should not be at all serious.

From the standpoint of chronic low level exposure, I would not consider any inhalation exposure from breathing the fumes at normal temperatures. If the material were heated, a different situation would arise and then one would look for an effect on the liver. Here, again, the material has warning qualities, inasmuch as the odor would be extremely pronounced and disagreeable.

The material can be absorbed through the skin, so good housekeeping and the use of gloves are recommended. This will avoid the defatting or solvent action of the material on the skin.

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In summary, I can state that the use of relatively simple procedures has been effective in the safe use of this material as a heat transfer agent.

If you have any further questions, please let me know.

Sincerely,

R. Emmet Kelly, M. D.
Medical Director

REK/ln

bcc: Stan Shaw - SSHAW
Richard Davis - RDAVI

Dick: As I told you on the phone, this man was not too concerned. He only had two men, who had really a very minor acute exposure.

REK

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