UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 22 1981

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Paranitrophenol; Two-Generation Reproduction Study
U.S. Army Environmental Hygiene Agency CASWELL#603

FROM: Roland A. Gessert, D.V.M.
Toxicology Branch, HED (TS-769)

TO: Mr. A.E. Castillo (32)
Registration Division (TS-767)

THRU: William Burnam, Acting Chief
Toxicology Branch, HED (TS-769)

I reviewed the protocol for the proposed 2-generation reproduction study in rats to be conducted with paranitrophenol by the U.S. Army Environmental Hygiene Agency at Aberdeen Proving Ground, Maryland. The study is unique in that application will be by the dermal route. We find the study follows closely the proposed guidelines; the study is very well planned. We had a few questions, however, so I telephoned Maurice Weeks for clarification.

The protocol stated that the proposed doses were based on the LD_{50}, without stating whether this was the acute dermal or acute oral LD_{50}. Mr. Weeks stated doses were based on the acute dermal LD_{50}. He also stated that young females were almost twice as susceptible to paranitrophenol as the males (LD_{50} 800-900 mg/kg vs 1500 mg/kg).

I also inquired whether there would be any danger of the rats licking the paranitrophenol from the application site, and thereby being poisoned by oral ingestion. He stated their studies indicated paranitrophenol is very rapidly and completely absorbed, as indicated by their very rapid death when a lethal dose is administered, and so therefore there should be no concern about oral ingestion from the application site. The very rapid absorption also precludes or resolves any possible concern over the necessity of occlusion of the application site, accumulation of chemical on the application site, and whether the application site would be abraded by scratching (due to irritation of the skin by accumulations of chemical).

The rats for the study arrived yesterday and Mr. Weeks was going to call me today. I told him the protocol looked good, our questions have been resolved, and that as far as I was concerned they could begin the study whenever they desired.

Mr. Weeks invited me to vist their facility. I would like to visit them and observe the study while in progress.

2