CIC1.950802.045

THIS DOCUMENT CONSISTS OF TWO PAGES.
COPY NO. 1 OF THREE COPIES.

SECRET

project RAND

RESTRICTED DATA
AEC Act of August 1946

DOUGLAS AIRCRAFT COMPANY, SANTA MONICA, CALIFORNIA

April 16, 1948 04-941

(7)

CLASSIFICATION CANCELLED
DATE 2-26-78
For The U. S. Atomic Energy Commission
Division of Classification

Dr. Joseph G. Hamilton
Radiation Laboratory
University of California
Berkeley 4, California

Dear Dr. Hamilton:

Thank you very much for your letter of April 7. I greatly appreciate your taking the pains to write in such detail.

Ed McMillan and I are engaged in a revision of our report, as you know, and this seems to be turning into a pretty thorough rewriting job. In the course of this, I have discussed the 50% lethal dosage with Dr. Dowdy here. Although he feels that the dosage would be approximately 350, he thought we should use the following limits: 350 to 500. I am glad to see that this bracket covers the value of 450 R which you estimate. He further recommended setting limits of from 700 to 1000 R for 30 R per day average exposure and 800 to 1500 R for 10 R per day exposure. I am also glad to see that the figure for 30 R per day is consistent with your estimate of 30 days at that rate of exposure. If you should feel that the above limits can be narrowed or made more realistic, I should appreciate hearing from you again, as our rewrite is still incomplete.

Ed and I are planning to limit our new report to the effects of gamma emitters and to defer the beta emitters for a succeeding report. At that time, we shall incorporate your suggestions on the relative ineffectiveness of water contamination by beta emitters and also the longer lived beta emitters for air contamination. Incidentally, I have just discovered a mathematical error in the figures of area coverage given in the previous report. The figures for square miles of coverage are all high by a factor of 10 (that elusive decimal point). Also, I suspect that the figures for water pollution are high by about a factor of 10 since you state that roughly 100 millicuries of beta emitter would be required as contrasted to 10 millicuries for air contamination which, I believe, is the figure you gave in our discussion in Ernest Lawrence's office. This would further be reduced by the adsorption as you point out in your letter.

Archives and Records Office
Dr. Joseph G. Hamilton Records

0166076

R30091

RESTRICTED DATA
This document contains restricted data as defined in the Atomic Energy Act of 1954. Its transmittal or the disclosure of its contents in any manner to an unauthorized person is prohibited.

SECRET

GROUP 1
Excluded from automatic downgrading and declassification

I agree with your skepticism on "humanity." I am very glad to have your comments in the paragraph at the top of Page 3.

Thank you again for your letter. We shall see that you receive a copy of our revised report as soon as it is reproduced.

Sincerely yours,

D. T. Griggs

D. T. Griggs
Project RAND

DTG:vm

Lawrence Berkeley Laboratory
Archives and Records Office
Dr. Joseph G. Hamilton Records

016677