

MAY 15 1969

DML:IB:NB
(05-00046-13)

Department of the Army
Office of the Surgeon General
Washington, D. C. 20315

Attention: Lt. Colonel James E. Anderson, MSC
Preventive Medicine Division
MEDS-PO

Gentlemen:

Enclosed is Amendment No. 16 to License No. 05-00046-13.

In Section III.a. of the USAMRII document Work Unit 080; ST 10, the statement is made that "The maximum dose of 50 microcuries of C^{14} labeled glucose to be administered per adult is well within the officially approved dosage (maximum permitted is 300 microcuries) for study of metabolic processes in man . . ." There is no maximum officially approved dosage for use in patients or in a medical study. The concept of maximum permissible body burden as discussed in NBS Handbook 69 does not pertain to medical studies but rather is based on that amount of a radionuclide which is deposited in the total body and produces the maximum RBE dose rate to the designated body organ. If the maximum permissible body burden were to be used as the criterion for maximum dose in medical use of radioisotopes, the dose for use of iodine 131 for thyroid uptake would have to be limited to 0.7 microcurie. This quantity is much lower than the dose normally used for thyroid uptake determination.

Fitzsimons General Hospital and the USAMRII, as well as other facilities using radioisotopes in humans, should be made aware of the matter of trying to relate maximum permissible body burden to dosage in humans for medical purposes.

bcc: Std. Br. Distr.
CO, Region I

Sincerely,

Original Signed by
Nathan Bassin
Isotopes Branch
Division of Materials
Licensing

A/SI

Enclosures:

OFFICE	1. Amendment No. 16 DML:IB
	2. AEC-313 & 313a
SURNAME	NBassin/es
DATE	5/15/69