Form AEC-313
(8-64)
10 CFR 30

NITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved.
Budget Bureau No. 38-R027

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. *(Institution, firm, hospital person, etc. Include ZIP Code.)*

Department of the Army
Fitzsimons General Hospital &
US Army Med. Research & Nutrition
Denver, Colorado 80240

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. *(If different from 1(a). Include ZIP Code.)*

Same as 1 (a)

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Nuclear Medicine Service
Radiation Therapy

3. PREVIOUS LICENSE NUMBER(S). *(If this is an application for renewal of a license, please indicate and give number.)*

Amendment to license No. 05-00046-13

4. INDIVIDUAL USER(S). *(Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)*

As specified and approved by the
Radioisotope Committee
Fitzsimons General Hospital

5. RADIATION PROTECTION OFFICER. *(Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)*

As No. 4

6. (a) BYPRODUCT MATERIAL. *(Elements and mass number of each.)*	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. *(If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)*	
99Mo #6 (O) of present license	Generator, E. R. Squibb & Sons Model No. 08871	1 Curie
90Sr #6 (P) of present license	Tracerlab Model RA-1 Sealed Medical Applicator	50 millicuries

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. *(If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)*

See Form AEC 313a of previous application

1867

(Continued on reverse side)

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection			Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	See present license #05-00046-13		Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
See present license #05-00046-13				

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm²)	USE (Monitoring, surveying, measuring)
See present license #05-00046-13					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE

See present license #05-00046-13

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED (For film badges, specify method of calibrating and processing, or name of supplier.)

See present license #05-00046-13

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached (Circle answer) Yes No

See present license #05-00046-13

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

See present license #05-00046-13

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

See present license #05-00046-13

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Date 12 Nov. 1970

Dept. of the Army, FOH & US Army Med. Rsch & Nutr Lab, Denver, Colo. 80240
(Applicant named in item 1)

By James E. Anderson, LTC, MSC

John B. Campbell, LTC MC
Chairman, Radioisotope Committee
(Title of certifying official)

WARNING.—18 U. S. C., Section 1001, Act of June 25, 1948, 62 Stat. 749, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1964 O—745-382

Fitzsimons G H

MEDEO

29 October 1970

SUBJECT: Amendment to USAEC Byproduct Material License Number 05-00046-13

The Surgeon General
ATTN: MEDPS-PO
Department of the Army
Washington, D. C. 20315

1. Under the provisions of paragraph 5a, AR 40-37, it is requested that the U. S. Atomic Energy Commission Byproduct Material License Number 05-00046-13 be amended as follows:

a. Item 6, line O: Change 600 millicuries to 1 curie.
Reason: At this installation, the generators are received on Thursday, having been precalibrated on Wednesday by the manufacturer to provide the desired millicuries on the following Monday. As a result, there are periods of time when the number of millicuries of Molybdenum-99 on hand exceeds the 600 millicuries authorized. An increased authorization for 400 additional millicuries added to the already authorized 600 will preclude further violations of the license.

b. Item 6, line P: Change 25 millicuries to 50 millicuries.
Reason: The Strontium-90 medical applicator currently covered by the existing license was returned to Tracerlab, the manufacturer, for calibration. It was calibrated and returned to Fitzsimons with the manufacturer correcting his previous assay from 25 to 50 millicuries. This correction places the quantity of Strontium-90 on hand in excess of the authorized amount.

2. The above discrepancies were detected during the Annual OTSG General Inspection, FY 1971, and the requested amendments are submitted in compliance with recommendations of the inspecting team.

1 Incl
Form AEC-313

A. J. SCHOEPFLIN, M.D.
Colonel, MC
Acting Commander

1867

~~C R Buchanan~~

DML:MB

~~Brayer~~

License file

DEPARTMENT OF THE ARMY
FITZSIMONS GENERAL HOSPITAL
DENVER, COLORADO
LICENSE NO. 05-00046-13
REQUEST FOR INQUIRY

Glen Brown

Enclosed is a copy of a memo to me dated December 18, 1970, from DML enclosing copies of license amendment correspondence from the subject licensee pertaining to a strontium 90 medical applicator. It appears that an applicator supposedly containing 25 millicuries was returned to the manufacturer, Tracerlab, for recalibration whereupon the source was re-assayed as 50 millicuries.

X

Please conduct an inquiry at Fitzsimons General Hospital to determine the facts and circumstances surrounding this recalibration. If the original assay was in error the following points appear to be pertinent:

1. Extent of any additional radiation doses received by patients as a result of the error
2. Source serial number and date(s) of original purchase and assay
3. Circumstances surrounding the request for recalibration
4. Date of recalibration

Please send a copy of your resulting Inquiry Memorandum to Region I for their follow-up with the supplier, Tracerlab.

Enclosure:
Memo dtd 12/18/70, Buchanan to Roy w/4 pp. encl.

cc: Paul Nelson, CO:I, w/encl.
✓C. R. Buchanan, DML:MB, w/o encl.

CO
GWRoy:akb

1/6/71

Gen W. Roy

1/6/71