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

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-R0027

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.)*

Lakewood Hospital
14519 Detroit Ave.
Lakewood, Ohio 44107

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

Same

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Nuclear Medicine

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

34-1197-01 - Renewal with additions

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.)*

William J. Fayen, M.D.
Director, Nuclear Medicine

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.)*

Wilfred M. Gill, M.D.
Associate Radiologist

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.)*

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.)*

(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			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

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)
RADX Mark V Istotope Dosecalibrator	1	Gamma			Measuring
Victoreen Survey Meter #2035	1	Gamma Beta	0.1 mr/hr. to 1.0 kr/hr.		Surveying

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

Survey instrument monthly - KR 85 standard
Measuring instrument weekly, standard solution and Cesium source.

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

Film badges by Landauer Co., monthly

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 attached Page 1

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 attached Page 2

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 attached Page 3

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.

Lahaina Hospital
Applicant named in item 1

Date October 17, 1972

By: M Baya, MD
Director of Nuclear Medicine
Title of certifying official

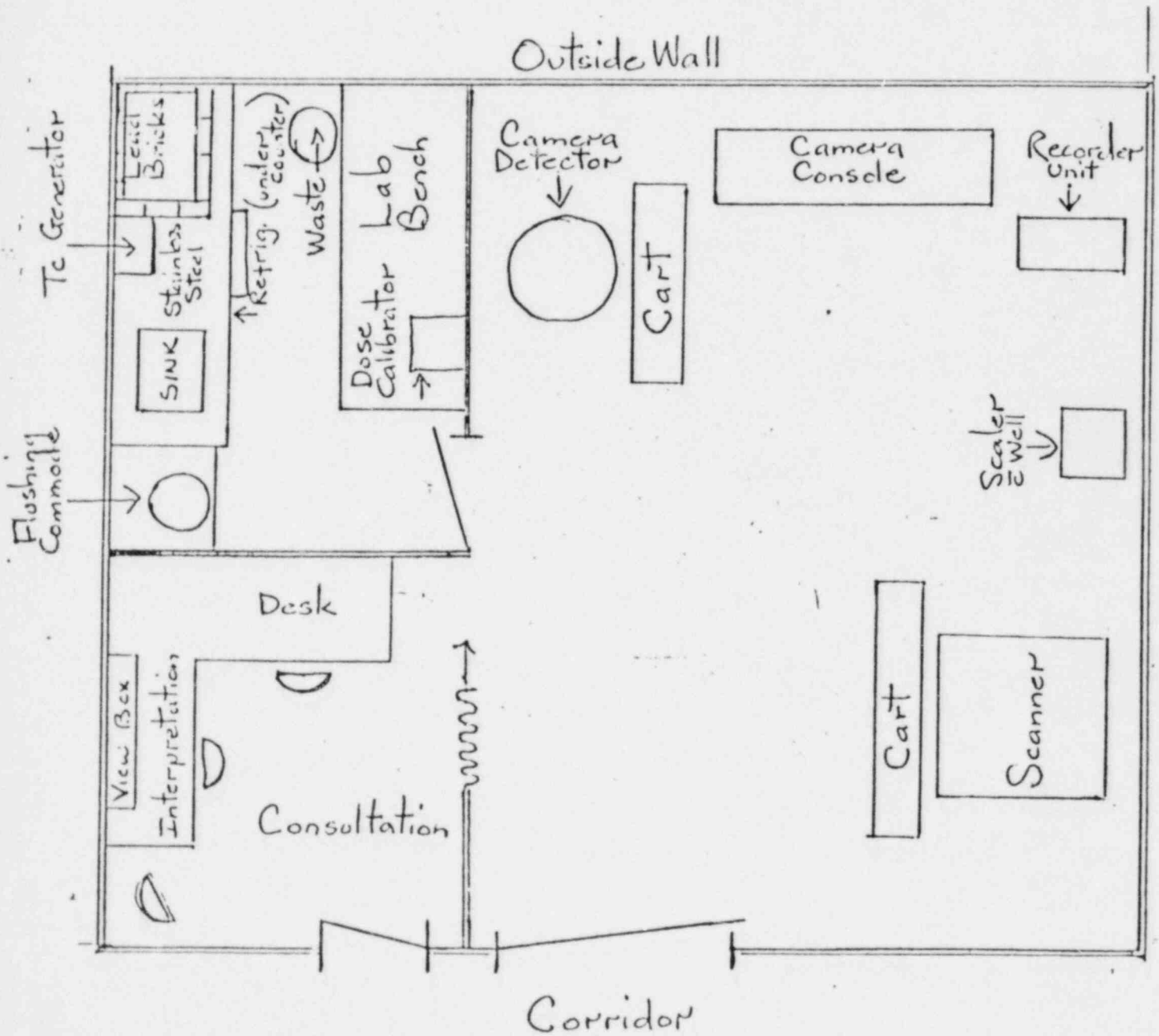
WARNING.—18 U. S. C., Section 1001, Act of June 25, 1948, 62 Stat. 749, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

* U.S. GOVERNMENT PRINTING OFFICE : 1968 O—322-213

13. FACILITIES AND EQUIPMENT

Facilities consist of a consultation and reading room, an isotope preparation and storage room and a diagnostic room where doses are administered, uptakes measured and samples counted.

The storage and preparation room contains a stainless steel table covered with absorbent paper, sink, commode, remote handling equipment, labeled waste disposal containers and istotopes which are stored in shielded containers and behind lead bricks.



Lakewood Hospital
Lakewood, Ohio

14. RADIATION PROTECTION PROGRAM

All radioisotopes are either procured in pre-calibrated assayed individual doses, or produced by a Moly-Technetium generator, and stored prior to use behind lead shields in the preparation room. During administration of doses to patients, plastic gloves are worn. The preparation room, storage area and diagnostic room are monitored daily or after admistration of isotopes to patients. Uptake equipment and portable survey meter are checked daily and calibrated monthly. Isotope shipments are monitored immediately upon receipt as a check for damage, leakage or contamination. Permanent records are maintained on all radioisotopes, shipments, doses administered, waste disposal, exposure of individual users and any transfers of material to other authorized persons.

Lakewood Hospital
Lakewood, Ohio

15. WASTE DISPOSAL

Liquid waste will be disposed of in accordance with section 20.303 of 10 CFR 20.

Solid wastes such as paper cups, tissues, empty isotope containers, etc. are deposited in labeled waste containers. Contents of containers are removed daily by user and stored in locked area for decay to background level as measured by survey meter. These articles are disposed in normal trash after removal or destruction of radiation labels. Contaminated instruments, syringes etc are stored for decay to background in same area. Moly-Technetium generators are returned to manufacturer (Mallinckrodt-Nuclear) for disposal.

MEDICAL ISOTOPES COMMITTEE - Lakewood Hospital, Lakewood, Ohio

William Pudvan, M.D., Chairman

Diplomate - American Board of Radiology, 1969

Isotope experience with I 131, P 32, Au 198 and Tc 99m at University Hospitals of Cleveland for six months in 1967 and at Cleveland Clinic for eighteen months in 1968-69.

John J. Judge, M.D.

Diplomate - American Board of Pathology in Anatomic and Clinical Pathology, 1970

Part-time isotope general experience, six months in 1968 and in vitro testing, 1966-70 at St. Luke's Hospital, Cleveland, Ohio.

William J. Fayen, M.D.

Diplomate - American Board of Internal Medicine, 1954

General isotope experience and director of the Nuclear Medicine laboratories at St. John's and Lakewood Hospitals (AEC licensed) since 1956.in Cleveland, Ohio.

Lakewood Hospital
Lakewood, Ohio

MEDICAL ISOTOPES COMMITTEE - Functions

1. Review and grant permission for, or disapprove, the use of by-product material for experimental or nonroutine uses within the institution from the standpoint of radiological health and safety of patients or working personnel and other factors which the committee may wish to establish for medical uses of by-product materials prior to submission of an application to the Commission for licensing action.

2. Prescribe special conditions that will be required during a proposed use of by-product material such as requirements for bioassays and physical examinations of users, minimum level of training and experience of users.

3. Receive and review records and reports from the radiological safety officer or other individuals delegated responsibility for health safety practices in the institution.

4. Recommend remedial action to correct safety infractions.

5. Formulate and review the institutional training programs for the safe use of radioisotopes.

6. Maintain written record of actions taken by the committee.

7. Coordinate and supervise the use of isotopes under private practice license.

Lakewood Hospital
Lakewood, Ohio