



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	See application, 1956 & 1963		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
		See applications, 1956 and 1963		

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/cm <sup>2</sup> )	USE (Monitoring, surveying, measuring)
See applications, 1956 and 1963					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.  
See original application, 1956

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)  
See original application, 1956

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 original application
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 original application
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.

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.

A 18

Date October 1, 1967

Lakewood Hospital

Applicant named in item 1

By: Steven Kovacs (M.D.)  
Steven Kovacs, M.D.  
Chairman, Isotope 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.

APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL  
SUPPLEMENT A—HUMAN USE

If byproduct material is for "human use" (internal administration of byproduct material, or the radiation therefrom to human beings), complete this supplement and attach to the application for byproduct material license.

1. (a) USING PHYSICIAN'S NAME  William J. Fayen, M.D.	(b) NAME AND ADDRESS OF APPLICANT (If different from 1(a). Include ZIP Code.)  Lakewood Hospital 14519 Detroit Ave. Lakewood, Ohio 44107
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2. THE USING PHYSICIAN INDICATED ABOVE IS LICENSED TO DISPENSE DRUGS IN THE PRACTICE OF MEDICINE BY A STATE OR TERRITORY OF THE UNITED STATES, THE DISTRICT OF COLUMBIA, OR THE COMMONWEALTH OF PUERTO RICO.  CIRCLE ANSWER	YES <input checked="" type="radio"/> NO <input type="radio"/>
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3. A STATEMENT OF USING PHYSICIAN'S CLINICAL RADIOISOTOPE EXPERIENCE (PAGE 3 OF THIS SUPPLEMENT) IS SUBMITTED IN SUPPORT OF THIS APPLICATION. IF ANSWER IS NO, USE PAGE 2 OF THIS SUPPLEMENT TO EXPLAIN OR REFER TO OTHER APPLICATION OR RELATED DOCUMENTS ON WHICH THIS INFORMATION APPEARS.  See application of 1956 and 1963	CIRCLE ANSWER YES <input type="radio"/> NO <input checked="" type="radio"/>
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PROPOSED DIAGNOSIS OR TREATMENT

4. (a) DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED INCLUDING SPECIFIC CONDITIONS OR DISEASES TO BE DIAGNOSED OR TREATED (Use page 2 if necessary):  See detail on Page 2.	
(b) CHEMICAL FORM ADMINISTERED:  See detail on Page 2.	
(c) DESCRIBE PROCEDURES WHICH WILL BE OBSERVED TO MINIMIZE HAZARD FROM HANDLING, STORAGE, AND DISPOSAL OF THE BYPRODUCT MATERIAL:  See original application.	
(d) DESCRIPTION AND SKETCHES OF SPECIAL DEVICES TO BE USED FOR ADMINISTERING BYPRODUCT MATERIAL TO HUMAN BEINGS ARE (1) ATTACHED (LITERATURE REFERENCES WILL SUFFICE)  (2) ON FILE WITH THE ISOTOPES BRANCH REFER TO APPLICATION NO _____	CIRCLE ANSWER YES <input type="radio"/> NO <input type="radio"/>  CIRCLE ANSWER YES <input checked="" type="radio"/> NO <input type="radio"/>

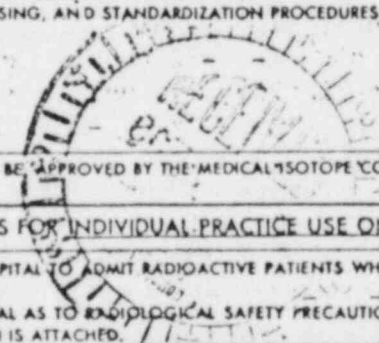
5. PROPOSED DOSAGE SCHEDULE (a) In millicuries for internally administered byproduct material other than discrete fixed sources; and in roentgens or rads, as appropriate, for internal or external irradiation from discrete fixed sources (gold seeds, cobalt needles, etc.) state separately for each condition or disease (use page 2 if necessary):  See detail on Page 2.	
(b) INVESTIGATIVE PROPOSAL FOR EXPERIMENTAL, NEW OR UNUSUAL HUMAN USES IS ATTACHED. (Attachment should include outline of conditions to be evaluated, including data from animal studies and/or abstract of literature reference if any, number and type of patients (i. e. age group, moribund, etc.))	
CIRCLE ANSWER	YES <input type="radio"/> NO <input checked="" type="radio"/>

6. IF BYPRODUCT MATERIAL WILL NOT BE OBTAINED IN PRECALIBRATED FORM FOR ORAL ADMINISTRATION OR IN PRECALIBRATED AND STERILIZED FORM FOR PARENTERAL ADMINISTRATION, DESCRIBE IDENTIFICATION, PROCESSING, AND STANDARDIZATION PROCEDURES:	
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7. THE PROPOSED USE OF BYPRODUCT MATERIAL HAS BEEN, OR WILL BE, APPROVED BY THE MEDICAL ISOTOPE COMMITTEE.	CIRCLE ANSWER YES <input checked="" type="radio"/> NO <input type="radio"/>
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HOSPITAL FACILITIES FOR INDIVIDUAL PRACTICE USE ONLY

8. (a) THE APPLICANT HAS COMPLETED ARRANGEMENTS FOR A HOSPITAL TO ADMIT RADIOACTIVE PATIENTS WHENEVER ADVISABLE.	CIRCLE ANSWER YES <input type="radio"/> NO <input type="radio"/>
(b) A COPY OF INSTRUCTIONS TO BE FURNISHED TO THE HOSPITAL AS TO RADIOLOGICAL SAFETY PRECAUTIONS TO BE TAKEN AND AVAILABLE RADIATION INSTRUMENTATION IS ATTACHED.	CIRCLE ANSWER YES <input type="radio"/> NO <input type="radio"/>



## APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL

PAGE 2

SUPPLEMENT A—HUMAN USE

This page may be used for providing additional information. Please cross reference to specific items.

3. See application of 1956 and 1963.

4. (a) Describe purpose for which by-product material will be used, including specific conditions or diseases to be diagnosed or treated.

- I 131 Diagnosis of thyroid function, blood volume, fat absorption studies, treatment of hyperthyroidism and cardiac dysfunction and placental localization.
- I 125 Blood volume determination, placental localization.
- P 32 Treatment of leukemia and polycythemia vera.
- Co 60 Diagnosis of pernicious anemia.
- Hg 197 Brain and kidney scanning.
- Hg 203 Brain and kidney scanning.
- Cr 51 Red cell survival studies
- Au 198 Liver scanning.
- Fe 59 Iron turnover studies.
- I 131 Lung scanning for pulmonary infarcts.
- I 131 Cardiac scanning.
- Sr 85 Bone scans on patients with diagnosed cancer.
- Tc 99m Brain scanning.
- I 131 Liver scanning.

(b) Chemical form administered.

- I 131 Iodide, labelled fats and/or fatty acids, iodinated human serum albumin.
- I 125 Iodinated human serum albumin.
- P 32 Sodium phosphate.
- Co 60 Cobalamin concentrate.
- Hg 197 Neohydrin.
- Hg 203 Neohydrin.
- Cr 51 Sodium chromate.
- Au 198 Colloidal suspension.
- Fe 59 Ferrous citrate.
- I 131 Iodinated human serum albumin, colloidal aggregates.
- I 131 Iodipamide Sodium.
- Sr 85 Nitrate and/or Chloride.
- Tc 99m Pertechnetate.
- I 131 Rose Bengal

5. (a) Proposed dosage schedule.

- |        |                                      |        |                               |
|--------|--------------------------------------|--------|-------------------------------|
| I 131  | Thyroid diagnosis - 5-50 uc.         | Cr 51  | Red cell survival- 50-100 uc. |
|        | Fat absorption studies - 25 uc.      | Au 198 | Liver scanning- 50-100 uc.    |
|        | Hyperthyroidism - 3-40 mc.           | Fe 59  | Iron turnover study- 5-10 uc. |
|        | Cardiac states - 10-50 mc.           | I 131  | Lung scanning- 200-300 uc.    |
|        | Blood volume studies - 5-10 uc.      | I 131  | Heart scanning- 250 uc.       |
|        | Placental localization - 5 uc.       | Sr 85  | Bone scanning- 100 uc.        |
| I 125  | Blood volume study - 5-10 uc.        | Tc 99m | Brain scanning- 5 mc.         |
|        | Placental localization - 5 uc.       | I 131  | Liver scanning- 100-200 uc.   |
| P 32   | Polycythemia and leukemia - 2-10 mc. |        |                               |
| Co 60  | Diagnosis P.A. - 0.5 uc.             |        |                               |
| Hg 197 | Brain scan - up to 1 mc.             |        |                               |
|        | Kidney scan - 50-150 uc.             |        |                               |
| Hg 203 | Brain scan - up to 700 uc.           |        |                               |
|        | Kidney scan - 50-100 uc.             |        |                               |

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