

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

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: Materials Branch, Directorate of 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, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 16 and the appropriate fee enclosed. (See Note in Instruction Sheet).

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital person, etc. include ZIP Code and telephone number.)		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a), include ZIP Code.)	
Louis A. Weiss Memorial Hospital.		As Above	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL A) Radiation Therapy B) Nuclear Medicine		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) Amendment to License No. 12-02418-01	
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.) A) G.A. Lawrence, M.D. B) J. Singh, M.D. P. Shirazi, M.D. L. Rosenbloom, M.D.		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.) A.G. Kaluskar, Ph.D.	
6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.) PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979		(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 source and maximum activity per source.) PLEASE REFER TO OUR APPLICATION OF FEBRUARY 26, 1979	
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.) PLEASE REFER TO OUR APPLICATION OF FEBRUARY 26, 1979			

(Continued on reverse side)

Control No. 01950

JUL 3 1979

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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	PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979 AND SUPPLEMENT 1 ATTACHED.		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
PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979 AND SUPPLEMENT 1 ATTACHED				

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 ²)	USE (Monitoring, surveying, measuring)
PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979					

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

PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979

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

PLEASE REFER TO OUR APPLICATION OF FEB. 26, 1979

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 <u>No</u>	PLEASE REFER TO OUR APPLICATION OF 2/26/79
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.	PLEASE REFER TO OUR APPLICATION OF 2/26/79
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 disposal of radioactive wastes and estimates of the type and amount of activity involved.	PLEASE REFER TO OUR APPLICATION OF 2/26/79

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
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License Fee Category is 7 B
 Fee Enclosed \$ 40.00

Date June 25, 1979

Louis A. Weiss Memorial Hospital
 Applicant named in item 1
 By: R. Van Bokkelen
 R. Van Bokkelen, Asso. Director
 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.

Louis A. Weiss
Memorial Hospital

4646 North Marine Drive
Chicago, Illinois 60640
312/878-8700

Mortimer W. Zimmerman
Executive Director


David D. Kram, M.D.
Medical Director

James Champer
Administrative Director

NRC LICENSE # 12-02418-01

SUPPLEMENT 1

Training and Experience

- 
- 1) G.A. Lawrence, M.D.
 - a) Please refer to our application of Feb. 26, 1979
 - b) Please see Supplement 1 (a) attached.
 - 2) J. Singh, M.D.
 - a) Please refer to our application of Feb. 26, 1979.
A copy of the preceptor statement is attached.
 - b) Dr. Singh has been working fulltime in the capacity of Director of Nuclear Medicine Department since Jan. 1972. He has been doing on an average of 5000 procedures per year. He has been treating patients for hyperthyroidism and thyroid carcinoma using I-131 under the collaboration and supervision of Dr. L. Keer, Dr. F. Khan and Dr. E. Kaplan. (About 60 total cases, more than 10 cases for thyroid carcinoma).
 - 3) L. Rosenbloom, M.D.
 - a) Please refer to License No. 12-09567-01
(Lutheran General Hospital, Park Ridge, Illinois).

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC HEALTHAPPLICATION FOR RADIOACTIVE MATERIALS LICENSE
Supplement B - Training and Experience

Gilbert A. Lawrence, M.D.

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEMS 4 AND 5 ON FORM IDPH.KLM.001

TYPES OF TRAINING	WHERE EXPERIENCE WAS GAINED AND INSTRUCTOR (S)	DURATION OF TRAINING	ON THE JOB (Check Answer)	FORMAL COURSE (Check Answer)
Principles and practices of radiation protection	Hammersmith Hosp.	2 yrs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	The London Hosp.	1 1/2 yrs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Rosewell Park Memorial Inst., Bullalo	13 mo.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Michael Reese Hosp., Chicago	12 mo.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Radioactivity measurement standardization and monitoring techniques and instruments	Same as above	as above	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Mathematics and calculations basic to the use and measurement of radioactivity . . .	Same as above	as above	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Biological effects of radiation	Same as above	as above	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Form AEC-313a

11-671

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UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL

SUPPLEMENT A—PRECEPTOR STATEMENT

This page is to be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each. Back of page may be used for comments.

9. NAME AND ADDRESS OF APPLICANT PHYSICIAN (Include ZIP Code)

Jaspal Singh, M.D.

10. CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN NAMED IN ITEM 9 ABOVE

(A) ISOTOPE	(B) CONDITIONS DIAGNOSED OR TREATED	(C) No. Cases Observed (See 1 in key below)	(D) No. Cases Involving Personal Participation (See 2 in key below)
I-131	Diagnosis of thyroid function		250
	Dilution studies <u>Blood Volumes</u>		240
	Excretion studies <u>Renograms</u>		150
	Brain tumor localization		
	Scanning studies <u>Thyroid, Lungs</u>		650
	Treatment of hyperthyroidism		3
	Treatment of cardiac conditions		
	Treatment of thyroid carcinoma		
P-32	Treatment of polycythemia		
Soluble	Treatment of leukemia		
	Treatment of bone metastases		
	Tumor localization		
	Intracavitary treatment		
	Interstitial treatment		
Au-198	Intracavitary treatment		
	Interstitial treatment		
	Scanning studies <u>Liver Pancreas</u>		250
Cr-51	Blood determinations		30
	Scanning studies		
Co-58 or Co-60	Diagnosis of pernicious anemia		120
Co-60	Interstitial treatment		
I-192	Intracavitary treatment		
Co-60 or Cs-137	Teletherapy treatment		
Sr-90	Treatment of superficial diseases of the eye		
Other Isotopes			
Use back of page			

Key to Column C and D above

1. Observation should consist of observing radioisotope administration techniques and discussion with preceptor of dose history, treatment, most appropriate diagnostic and/or therapeutic procedure, limitation, contraindications, etc.
2. Personal participation should consist of (a) supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation on dosage to be prescribed; (b) collaboration in calibration of the dose and the actual administration of the dose to the patient, including calculation of the radiation dose, related measurements, and plotting of data; and (c) adequate period of training to enable the physician to manage radioactive patients and to follow patients through diagnosis and/or the course of treatment.

11. DATES AND TOTAL NUMBER OF HOURS OF CLINICAL RADIOISOTOPE TRAINING

1040 hrs.
Jan 1 - 1971 (Jan. 1, 1971 - June 30, 1971)

12. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF

Dr. Eryin Kaplan

VA Hospital, Hines, IL

(Institution Name and Address)

AEC 12-01087-07

(Byproduct Material License Number)

Eryin Kaplan M.D.

(Signature of Preceptor)

APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL

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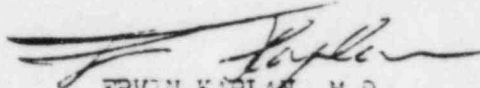
SUPPLEMENT A—HUMAN USE

This page may be used for providing additional information.

Blood Volumes	240
Bone Scans	30
Brain Scans	700
HG Neohydrin Renal Scans	15
Renograms	150
I-131 Thyroid Uptakes	250
Liver Scans	650
Lung Scans	400
Oleic Acid Fat Absorption	5
Pancreas Scans	250
Red Cell Survival Time	20
Schilling Tests	120
Schilling Tests with I.F.	30
Spleen Scans	300
T-3 Blood Tests	500
Thyroid Scans	250
Triolein Fat Absorption	10

Jaspal Singh, M.D., is a mature, well-trained physician with special training in internal medicine and gastroenterology. He has been in training status in Nuclear Medicine under my supervision at Nuclear Medicine Service, VA Hospital, Hines, Illinois, full time, for a period of six months.

He should be permitted to use byproducts materials indicated for human use in this preceptor statement. I have no reservations concerning his skill and experience in these procedures.



ERVIN KAPLAN, M.D.

Chief, Nuclear Medicine Service