NRC Form 237
(3-82)
10 CFR 35

U.S. NUCLEAR REGULATORY COMMISSION

Approved by OMB
3150-0091
Expires 1-31-86

APPLICATION FOR MATERIALS LICENSE – TELETHERAPY

INSTRUCTIONS – Complete Items 1 through 22 if this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 22 must be completed on all applications and signed. Retain one copy. Submit original and one copy of entire application to: Director, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Upon approval of this application, the applicant will receive a Materials License. An NRC Materials 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, Parts 19, 20, 21, and 35 and the license fee provision of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 22 and the appropriate fee enclosed.

1.a. NAME AND MAILING ADDRESS OF APPLICANT *(Institution, firm, clinic, physician, etc.)* INCLUDE ZIP CODE

Ball Memorial Hospital
Department of Radiology

1.b. STREET ADDRESS(ES), ACTUAL LOCATION OF TELETHERAPY SOURCE, INCLUDING BUILDING NAME, ROOM NUMBER, ETC.

2401 University Ave.
Muncie, IN. 47303

TELEPHONE | AREA CODE ( ) | NUMBER

2. PERSON TO CONTACT REGARDING THIS APPLICATION

Arvind Kumar, Ph.D.

TELEPHONE | AREA CODE (317) | NUMBER 747-3148

3. THIS IS AN APPLICATION FOR: *(Check appropriate item)*

- [ ] a. NEW LICENSE
- [XX] b. AMENDMENT TO LICENSE NO. 13-00951-04
- [ ] c. RENEWAL OF LICENSE NO. _____

4. INDIVIDUAL USERS *(Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.)*

Add: Bharat S. Jailwala, M.D.
Delete: Donald R. Taylor, M.D.

5. RADIATION SAFETY OFFICER (RSO) *(Name of person designated as radiation safety officer. If other than individual user, complete resume of training and experience as in Supplement A.)*

Information already on file with
License # 13-00951-04

6. SEALED SOURCES TO BE USED IN TELETHERAPY UNITS *(Attach supplemental pages if necessary)*

	BYPRODUCT MATERIAL *(Element and Mass No.)*	NAME OF SOURCE MANUFACTURER	SOURCE MODEL NUMBER	MAXIMUM ACTIVITY PER SOURCE	NUMBER OF SOURCES
A.	Information already on file				
B.					
C.					

7. TELETHERAPY UNITS *(Attach supplemental pages, if necessary)*

	NAME OF MANUFACTURER *(Include description, if unit is custom made)*	MODEL NUMBER
A.	Information already on file	
B.		
C.		

8. USE *(Attach supplementary pages, if necessary)*

A	B	C	
X			HUMAN USE ONLY
			HUMAN AND OTHER USE *(Specify on separate sheet)*

Applicant Sept 11
Check No. Q 29094
Amount Fee Category 7A $230
Type of Fee amd
Date Check Rec'd 9/9/85
Received By cap

9. PERSONNEL MONITORING DEVICES

	TYPE (Check and/or complete as appropriate)	SUPPLIER (Service Company)	EXCHANGE FREQUENCY
	(1) FILM BADGE – WHOLE BODY	Information already on file	
	(2) THERMOLUMINESCENT DOSIMETER (TLD) – WHOLE BODY		
	(3) OTHER *(Specify)*:		

CONTROL NO. [redacted]
to be assigned
E.S. Pat

INFORMATION REQUIRED FOR ITEMS 10 THROUGH 21

For items 10 through 21, check the appropriate box(es) and submit a detailed description of all the requested information. Begin each item on a separate sheet. Identify the item number and the date of the application in the lower right corner of each page. If you indicate that an appendix to the teletherapy licensing guide will be followed, do not submit the pages, but specify the revision number and date of the referenced guide. Regulatory Guide 10 Rev. _____ Date: _____

for items 10, 12-21, information is already on file

10. MEDICAL ISOTOPE COMMITTEE	15. BEAM STOPS
Names and specialties attached; and *(check one)*	Description of stops used to restrict beam orientation attached.
a. Duties as in Appendix A, or	16. SHIELDING EVALUATION
b. Equivalent duties attached.	Evaluation of proposed shielding attached.
11. TRAINING AND EXPERIENCE	17. OPERATING AND EMERGENCY PROCEDURES
XX a. Supplements A & B attached for each individual user; and	a. Description of operating procedures attached; and
b. Supplement A attached for RSO,	b. Copy of emergency procedures attached
12. INSTRUMENTATION *(check one)*	18. INSTRUCTION OF PERSONNEL *(check one)*
a. Appendix C form attached, or	a. Training program and schedule in Appendix H followed, or
b. List manufacturer's name and model number.	b. Description of instruction program for employees attached.
13. CALIBRATION OF INSTRUMENTS *(check one)*	19. LEAK TESTS OF SEALED SOURCES
a. Appendix D, Part 2 procedures followed for instrumentation calibration, or	Description of leak-test procedures attached.
b. Description of sources, calibration frequency and equivalent procedures attached.	20. QUALIFIED EXPERT *(Use only if the individual fails to meet 10 CFR 35.24 requirements.)*
14. FACILITIES AND EQUIPMENT	Statement of qualifications of the expert who will perform teletherapy calibrations attached.
a. Description and drawing of facilities attached; and	21. ALARA PROGRAM *(check one)*
b. Description of patient viewing and communicating systems attached; and	ALARA Program as in Appendix I, or
c. Description of area safeguards attached.	Equivalent ALARA Program attached.

22. CERTIFICATE

(This item must be completed by the applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations, Parts 30 and 35, and that all information contained herein, including supplements attached hereto, is true and correct to the best of our knowledge and belief.

a. LICENSE FEE REQUIRED *(See section 170.31, 10 CFR 170)*	b. APPLICANT OR CERTIFYING OFFICIAL *(Signature)* Arvind Kumar Ph.D.
(1) LICENSE FEE CATEGORY: 7A	(1) NAME *(Type or print)*: Arvind Kumar, Ph.D.
	(2) TITLE: Radiation Safety Officer
(2) LICENSE FEE ENCLOSED: $ 230	c. DATE

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.

NRC Form 313T Supplement A
(2-82)
10 CFR 35

U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE
PROPOSED AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF PROPOSED AUTHORIZED USER OR RADIATION SAFETY OFFICER	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE *(If physician)*
BHARAT S. JAILWALA, M.D.	Indiana

3. CERTIFICATION

SPECIALTY BOARD	CATEGORY	MONTH AND YEAR CERTIFIED
American Board of Radiology	Therapeutic Radiology	June 1985

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES *(To be completed by institution providing training)*

FIELD OF TRAINING	LOCATION AND DATE(S) OF TRAINING	TYPE AND LENGTH OF TRAINING	
		LECTURE/LABORATORY COURSE *(Hours)*	FORMAL SUPERVISED OJT/LABORATORY EXPERIENCE *(Hours)*
RADIATION PHYSICS AND INSTRUMENTATION			
RADIATION PROTECTION			
MATHEMATICS PERTAINING TO THE USE, MEASUREMENT, AND SHIELDING OF RADIOACTIVE SOURCES			
RADIATION BIOLOGY			

5. EXPERIENCE WITH RADIOACTIVE MATERIALS* *(Actual use of radioisotopes or equivalent experience)*

ISOTOPE	MAXIMUM AMOUNT FOR ANY SINGLE APPLICATION	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

*Experience with sealed radioactive sources under the supervision of qualified instructors should include:

1. Review of initial source calibration and periodic spot check measurements of teletherapy units.
2. Initial source calibration of sealed sources other than teletherapy sources that are used for treatment purposes.
3. Calibration of ion chambers and survey meters.
4. Preparation of treatment plans and treatment times for teletherapy and brachytherapy.
5. Knowledge of appropriate radiation safety, quality control, and emergency procedures for handling and using sealed sources.

6. I CERTIFY THAT THE INFORMATION PRESENTED ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF *(Signature of program supervisor)*

TYPED OR PRINTED NAME | DATE

NAME OF INSTITUTION

MAILING ADDRESS

CITY | STATE | ZIP CODE | RADIOACTIVE MATERIALS LICENSE NUMBER

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.

NRC Form 313T Supplement B
(2-82)

U.S. NUCLEAR REGULATORY COMMISSION

PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS

FULL NAME

STREET ADDRESS

CITY | STATE | ZIP CODE

KEY TO COLUMN C
PERSONAL PARTICIPATION SHOULD CONSIST OF:

1. Supervised examination of patients to determine the suitability for radioisotope therapy and recommendations on dosage to be prescribed.
2. Collaboration in calculation of radiation dose, related measurement, and modification of the originally prescribed dose as warranted by patient reaction to the radiation.
3. Followup of patients when required.
4. Study and discussion with preceptor of case histories to establish the most appropriate therapy procedures, limitations, contraindications, etc.

2. CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN CITED ABOVE IN USING SOURCES OR DEVICES FOR THERAPY

ISOTOPE A	TYPES OF TREATMENT B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS *(Append additional information, if necessary)* D
Co-60	COURSES OF TELETHERAPY TREATMENT		
OR	INTERSTITIAL		
Cs-137	INTRACAVITARY		
I-125 Ir-192 OR Au-198 SEEDS	INTERSTITIAL		
Ra-226	INTRACAVITARY		
X-RAY AND ACCELERATOR THERAPY	COURSES OF THERAPY TREATMENT		
Sr-90	SUPERFICIAL EYE CONDITIONS		
OTHER			

DATES AND TOTAL NUMBER OF HOURS IN CLINICAL TRAINING USING SEALED SOURCES FOR THERAPY

3. PRECEPTOR'S CERTIFICATION

NAME OF SUPERVISOR | NAME OF INSTITUTION | RADIOACTIVE MATERIALS LICENSE NUMBER

MAILING ADDRESS | CITY | STATE | ZIP CODE

I CERTIFY THAT (a) THE INFORMATION PRESENTED ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND (b) I WAS AUTHORIZED BY THE REFERENCED RADIOACTIVE MATERIALS LICENSE(S) TO PERFORM THE PROCEDURES SPECIFIED ABOVE. I FURTHER BELIEVE THAT THE APPLICANT PHYSICIAN IS COMPETENT TO PERFORM THESE PROCEDURES INDEPENDENTLY. *(Signature)* | DATE

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The American Board of Radiology

DEAR DOCTOR:

I am pleased to inform you that at its last meeting The American Board of Radiology voted to grant you its certificate in THERAPEUTIC RADIOLOGY.

With personal congratulations, I am

Sincerely yours,

Kenneth L. Goodwin Secretary

28094 TR
BHARAT SUMANLAL JAILWALA MD
38 SUGARMAPLE CT
CINCINNATI OH 45236

CONTROL NO. [redacted]