

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 License 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 University of Virginia Rectors and Visitors Office of Environmental Health & Safety P.O. Box 3425, Edgemont Road Charlottesville, VA 22903		1.B. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED (If different from 1.A.) INCLUDE ZIP CODE University of Virginia Hospital Division of Radiation Oncology Main Floor, Room B-961A Jefferson Park Avenue Charlottesville, VA 22908	
TELEPHONE	AREA CODE (804)	NUMBER 924-7334	
2. PERSON TO CONTACT REGARDING THIS APPLICATION Brian G. Copcutt, Ph.D.		3. THIS IS AN APPLICATION FOR: (Check appropriate item) ☐ A. NEW LICENSE ☒ B. AMENDMENT TO LICENSE NO. 45-00034-09 ☐ C. RENEWAL OF LICENSE NO.	
TELEPHONE	AREA CODE (804)	NUMBER 924-7334	
4. INDIVIDUAL USERS (Name individual who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.) User information has been submitted previously on July 23, 1986		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.) Brian G. Copcutt, Ph.D. (Supplement A has been submitted for Dr. Copcutt on July 23, 1986)	

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.	Cobalt 60	A.E.C.L.	A.E.C.L. 146 or 151	9500 Curies	Two (2)
B.					
C.					

7. TELETHERAPY UNITS (Attach supplemental pages, if necessary)		
	NAME OF MANUFACTURER (Include description, if unit is custom made)	MODEL NUMBER
A.	A.E.C.L.	Theratron 780C
B.		
C.		

8. USE (Attach supplemental pages, if necessary)		
A	B	C
X		
HUMAN USE ONLY		
HUMAN AND OTHER USE (Specify on separate sheet)		
Exhibits for Statement of Use have been submitted previously (July 23, 1986)		

9. PERSONNEL MONITORING DEVICES		
TYPE (Check and/or complete as appropriate)	SUPPLIER (Service Company)	EXCHANGE FREQUENCY
(1) FILM BADGE - WHOLE BODY		
(2) THERMOLUMINESCENCE DOSEMETER (TLD) - WHOLE BODY		
(3) OTHER (Specify):		
8810180470 880512 REG-2 LIC30 45-00034-09 PNU		

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: March, 1982

10. MEDICAL ISOTOPE COMMITTEE

Names and specialties attached; and (check one)

a. Duties as in Appendix A, or

b. Equivalent duties attached.

15. BEAM STOPS

☒ Description of stops used to restrict beam orientation attached.

16. SHIELDING EVALUATION

Evaluation of proposed shielding attached.

11. TRAINING AND EXPERIENCE

a. Supplements A & B attached for each individual user; and

b. Supplement A attached for RSO

17. OPERATING AND EMERGENCY PROCEDURES

a. Description of operating procedures attached; and

b. Copy of emergency procedures attached.

12. INSTRUMENTATION (check one)

a. Appendix C form attached, or

b. List manufacturer's name and model number

18. INSTRUCTION OF PERSONNEL (check one)

a. Training program and schedule in Appendix H followed, or

b. Description of instruction program for employees attached

13. CALIBRATION OF INSTRUMENTS (check one)

a. Appendix D, Part 2 procedures followed for instrumentation calibration, or

b. Description of sources, calibration frequency and equivalent procedures attached.

19. LEAK TESTS OF SEALED SOURCES

Description of leak test procedures attached.

14. FACILITIES AND EQUIPMENT

a. Description and drawing of facilities attached; and

☒ b. Description of patient viewing and communicating systems attached; and

c. Description of area safeguards attached.

20. QUALIFIED EXPERT (Use only if the individual fails to meet 10 CFR 35.24 requirements.)

Statement of qualifications of the expert who will perform teletherapy calibrations attached.

21. ALARA PROGRAM (check one)

(ALARA Program has been previously accepted by NRC)

ALARA Program as in Appendix I, or

Equivalent ALARA program attached

22. CERTIFICATE

(This item must be completed by the applicant)

The applicant and the 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 170.21, 10 CFR 170)

(1) LICENSE FEE CATEGORY

Exempt under 10 CFR 170.11(a)(9)

(2) LICENSE FEE ENCLOSED

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b. APPLICANT OR CERTIFYING OFFICIAL (Signature)

(1) NAME (Type or print)

Brian G. Copcutt, Ph.D

(2) TITLE

Radiation Safety Officer

c. DATE

February 10, 1988

WARNING: 18 U.S.C. Section 1001; Act of June 25, 1948; 62 Stat. 748, 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.

DESCRIPTION OF PATIENT VIEWING AND COMMUNICATION SYSTEMS

The continuous patient viewing system consists of two closed-circuit TV cameras coupled to 9-inch monitors. One of the cameras has a zoom lens plus pan and tilt features. The treatment room is also equipped with a leaded glass window and a viewing mirror as a backup to the TV system.

The thickness and density of the leaded glass are sufficient to reduce exposure rates on the outside surface of the glass to levels less than 2 mR/hr for all possible beam geometries within the room.

Voice communication with patients is accomplished via an intercom system.

Item 14b
February 10, 1988

BEAM STOPS

The head of the AECL Theratron-780C teletherapy unit will be used in a position that always points towards the primary beamstopper. Thus, the primary beam of radiation is always restricted to the beamstopper and never directly strikes any portion of the treatment room walls, floor, or ceiling. There is no limit to gantry rotation.