


FORM NRC-313M (8-78) 10 CFR 35	U.S. NUCLEAR REGULATORY COMMISSION APPLICATION FOR MATERIALS LICENSE — MEDICAL		Approved: GAO R0557																					
INSTRUCTIONS — Complete Items 1 through 26 if this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 26 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 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 26 and the appropriate fee enclosed.																								
1.a. NAME AND MAILING ADDRESS OF APPLICANT (institution, firm, clinic, physician, etc.) INCLUDE ZIP CODE US Darnall Army Community Hospital Fort Hood, Texas 76544 TELEPHONE NO.: AREA CODE 817 287-5988		1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED (If different from 1.a.) INCLUDE ZIP CODE US Darnall Army Community Hospital Fort Hood, Texas 76544																						
2. PERSON TO CONTACT REGARDING THIS APPLICATION 2LT Syvertson TELEPHONE NO.: AREA CODE 817 287 5988		3. THIS IS AN APPLICATION FOR: (Check appropriate item) a. <input type="checkbox"/> NEW LICENSE b. <input checked="" type="checkbox"/> AMENDMENT TO LICENSE NO. 42-19113-01 c. <input type="checkbox"/> 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.) <p style="text-align: center;">N/C</p>		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.) 2LT Robert L. Syvertson (see attached Form NRC-313M, Suppl. A)																						
6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE																								
RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">ADDITIONAL ITEMS:</th> <th style="width: 10%;">MARK ITEMS DESIRED "X"</th> <th style="width: 20%;">MAXIMUM POSSESSION LIMITS (In millicuries)</th> </tr> </thead> <tbody> <tr> <td>IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM</td> <td style="text-align: center;">X</td> <td style="text-align: center;">N/C</td> </tr> <tr> <td>PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES</td> <td style="text-align: center;">X</td> <td style="text-align: center;">N/C</td> </tr> <tr> <td>PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.</td> <td style="text-align: center;">X</td> <td style="text-align: center;">N/C</td> </tr> <tr> <td>GOLD-198 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.</td> <td></td> <td></td> </tr> <tr> <td>IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA</td> <td style="text-align: center;">X</td> <td style="text-align: center;">N/C</td> </tr> <tr> <td>XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.</td> <td style="text-align: center;">X</td> <td style="text-align: center;">N/C</td> </tr> </tbody> </table>	ADDITIONAL ITEMS:	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM	X	N/C	PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES	X	N/C	PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.	X	N/C	GOLD-198 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.			IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA	X	N/C	XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.	X	N/C
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10 CFR 31.11 FOR IN VITRO STUDIES	X	N/C																						
10 CFR 35.100, SCHEDULE A, GROUP I	X	AS NEEDED																						
10 CFR 35.100, SCHEDULE A, GROUP II	X	AS NEEDED																						
10 CFR 35.100, SCHEDULE A, GROUP III	X	N/C																						
10 CFR 35.100, SCHEDULE A, GROUP IV	X	AS NEEDED																						
10 CFR 35.100, SCHEDULE A, GROUP V	X	AS NEEDED																						
10 CFR 35.100, SCHEDULE A, GROUP VI	X																							
6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. (Sealed sources up to 3 mCi used for calibration and reference standards are authorized under Section 35.14(d), 10 CFR Part 35, and NEED NOT BE LISTED.)																								
ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM NUMBER OF MILLICURIES OF EACH FORM	DESCRIBE PURPOSE OF USE																					
N/C <div style="border: 1px solid black; padding: 5px; width: fit-content;"> 8412140485 841204 NMS LIC30 42-19113-01 PDR </div>																								

24. PERSONNEL MONITORING DEVICES				
TYPE <small>(Check appropriate box)</small>		SUPPLIER	EXCHANGE FREQUENCY	
a. WHOLE BODY	FILM	N/C		
	TLD			
	OTHER (Specify)			
b. FINGER	FILM			
	TLD	N/C		
	OTHER (Specify)			
c. WRIST	FILM	N/C		
	TLD			
	OTHER (Specify)			
d. OTHER (Specify)				

25. FOR PRIVATE PRACTICE APPLICANTS ONLY				
a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL				
NAME OF HOSPITAL			b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.	
MAILING ADDRESS			c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.	
CITY	STATE	ZIP CODE		

26. CERTIFICATE <small>(This item must be completed by applicant)</small>	
The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certify 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 any supplements attached hereto, is true and correct to the best of our knowledge and belief.	
a. LICENSE FEE REQUIRED <small>(See Section 170.31, 10 CFR 170)</small>	b. APPLICANT OR CERTIFYING OFFICIAL (Signature)  (1) NAME (Type or Print) RICHARD D. CAMERON, MD
(1) LICENSE FEE CATEGORY:	(2) TITLE Commander
(2) LICENSE FEE ENCLOSED: \$	c. DATE NOV 1 1984

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on Form NRC-313M. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S)** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30-36 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES** The information may be used: (a) to provide records to State health departments for their information and use; and (b) to provide information to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for a NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you. A copy of the license issued will routinely be placed in the NRC's Public Document Room, 1717 H Street, N.W., Washington, D.C.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed.
5. **SYSTEM MANAGER(S) AND ADDRESS** Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER SYVERTSON ROBERT L. (SEE ATTACHED CURRICULUM VITAE)	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE NA
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3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	FRANCIS MARION COLLEGE FLORENCE, S.C. 1978-83	750	250
b. RADIATION PROTECTION	"	150	75
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	"	1000	12
d. RADIATION BIOLOGY	"	30	15
e. RADIOPHARMACEUTICAL CHEMISTRY	"	30	15

5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Atomic Numbers 1-82 in millicurie and microcurie amounts		FRANCIS MARION COLLEGE HYDRO NUCLEAR SERVICES US ARMY ENVIRONMENTAL HYGIENE AGENCY (USAEHA)	1978-1983 1982 1983-1984	RADIATION PROTECTION
Cs-137	130 Curies	USAEHA	1983-1984	"
PuBe	5 millicuries	USAEHA	1983-1984	"
Co-60	2 Curies	FRANCIS MARION COLLEGE	1981-1983	"

CURRICULUM VITAE
ROBERT L. SYVERTSON
2LT, MSC

1702 Sherman Drive
Killeen, Texas 76541

CIVILIAN EDUCATION:

B.S. Health Physics	Francis Marion College	1978-83
ABHP Certification Review Course	University of Lowell	1984

MILITARY EDUCATION:

Officer's Basic Course	Fort Sam Houston, Texas	1983
AMEDD RPO Workshop	Aberdeen Proving Ground, MD	1984
Laser-Microwave Hazards Course	Aberdeen Proving Ground, MD	1984
Medical X-Ray Survey Techniques Course	Fort Sam Houston, Texas	1984
Nuclear Hazards Training Course	Kirtland AFB, NM	1984
Nuclear Medical Science Officer Workshop	Aberdeen Proving Ground, MD	1983

EXPERIENCE:

Lab Assistant Physics Department Francis Marion College, Florence, SC	1980-83
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Duties included assisting Physics Department personnel in the conducting of laboratory experiments. These laboratories included health physics, nuclear radiation physics, nuclear physics, modern physics, and classical physics. I also assisted department personnel in the management of the college nuclear material license. This included the personnel dosimetry program, wipe tests, inventor' , and surveys.

Technical Writer Hydro Nuclear Services Marlton, New Jersey	1982
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Job included the writing of a 6 month course to train the company's junior health physicist's technicians in the principles of radiation protection to properly qualify them to become senior technicians. The job also included qualification to utilize the company's whole body counting equipment and respirator fit testing equipment, and the testing of a portable extrapolation chamber.

Nuclear Medical Science Officer
US Army Environmental Hygiene Agency
APG-EA, MD

1983-84

Duties included the surveying of radiation protection programs throughout the Army, including medical programs, industrial programs, and reactor programs. Other duties included the review of NRC license applications by Army facilities and the review of design plans concerning radiation protection. Additional duties included Alternate Radiation Protection Officer for the 3 NRC Licenses managed by the Agency and manager of the personnel dosimetry program.

Radiation Protection Officer
MEDDAC
Fort Hood, TX

Oct 1984 to present

Duties include the management of the radiation protection program at MEDDAC, Fort Hood, and the management of the MEDDAC's NRC License. Duties will also include management of an effective ALARA program.

EXPERIENCE WITH RADIOISOTOPES:

Experience includes the handling and management of radioisotopes with atomic numbers 1-82. These radioisotopes were in various chemical forms and activities were in the microcurie to millicurie range. Also included is a 130 Curie Cs-137 source, a 5.0 mCi Co-60 source, and a microcurie Californium source.