EXHIBIT A FORM NAC-313M U.S. NUCLEAR REGULATORY COMMISSION Approved: (B-78) APPLICATION FOR MATERIALS LICENSE - MEDICAL GAO R0557 10 CFR 35 INSTRUCTIONS - Complete from 1 through 26 if this & an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 25 must be completed on all applications and signed. Result one copy. Submit original and one copy of entire application to : Director, Office of Nuclear Material Safety and Safeguard, U.S. Nuclear Regulatory Commission, Washington, D.C. 2055. 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, Fart 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, Parts 19, 20 and 35 and the license fee provision of Title 10. Code of Federal Regulations, Parts 19, 20 and 35 and the license fee provision of Title 10. Acense fee category should be stated in Item 25 and the appropriate fee enclosed. 1.8. NAME AND MAILING ADDRESS OF APPLICANT finishing on. 1.6 STREET ADDRESS(ES) AT WHICH RADIDACTIVE MATERIAL firm, clinic, physician, etc.) INCLUDE ZIP CODE WILL BE USED (If different from 14) INCLUDE ZIP CODE St. Louis University St. Louis University Radiation Safety Office, Rm M062 St. Louis, Missouri 1402 South Grand Boulevard St. Louis, Missouri 63104 TELEPHONE NO .: AREA CODE(3141664-9800, x108 2. PERSON TO CONTACT REGARDING THIS APPLICATION 3, THIS IS AN APPLICATION FOR: (Check appropriate item) . NEW LICENSE Rodger Munday L AMENDMENT TO LICENSE NO. . LXX RENEWAL OF LICENSE NO. \_24-00196-07 TELEPHONE NO.: AREA CODE 1314 1 664 9800 4. INDIVIDUAL USERS (Name individuals who will use or directly 5. RADIATION SAFETY OFFICER (RSO) (Name of person designated as radiation safety officer. If other than individual user, complete resusupervise use of radioactive material, Complete Supplements A and B for each individual 1 me of training and experience as in Supplement A.J. James W. Fletcher, M.D. Chairman, Radiation Safety Committee Rodger Munday 6 . RADIOACTIVE MATERIAL FOR MEDICAL USE

RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESTRED	MAXIMUM POSSESSION LIMITS (In millicuries)	ADDITIONAL ITEMS: MA	MS	MAXIMUM POSSESSION LIMITS (In millicuries)
10 CFR 31,11 FOR IN VITRO STUDIES	X	20	IDDINE-131 AS IDDIDE FOR TREATMENT OF HYPERTHYROIDISM	X	50
10 CFR 35.100, SCHEDULE A, GROUP I	X	as needed	PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES	X	50
10 CFR 35,100, SCHEDULE A, GROUP II	X	as needed	PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREAT MENT OF MALIGNANT EFFUSIONS.		50
10 CFR 35.100, SCHEDULE A, GROUP IV	- X	3000 as needed	GOLD-198 AS COLLOID FOR INTRA- CAVITARY TREATMENT OF MALIGNANT EFFUSIONS.	X	50
10 CFR 35.100, SCHEDULE A, GROUP V		as needed	IDDINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA	X	500
10 CFR 35, 100, SCHEDULE A, GROUP VI		500	KENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.	X	1500

(See previous NRC License, attached)

MAXIMUM NUMBER OF MILLICURIES OF EACH FORM

6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.8. IScaled sources up to 3 mCi used for

CHEMICAL

AND/OR PHYSICAL FORM

colibration and reference standards are authorized under Section 35.14(d), 10 CFR Part 35, and NEED NOT BE LISTED.]

FORM NRC-313M (8-78)

ELEMENT AND MASS NUMBER

DESCRIBE PURPOSE OF USE

## INFORMATION REQUIRED FOR ITEMS 7 THROUGH 23

References below refer to sections in the attached Radiation Control Program GENERAL RULES FOR THE SAFE USE OF 15. RADIOACTIVE MATERIAL (Check One) 7. MEDICAL ISOTOPES COMMITTEE Appendix G Rules Followed; or Appendix A. Names and Specialties Attached; and Equivalent Rules Attached Duties as in Appendix B; or (Check One) 16. EMERGENCY PROCEDURES (Check One) Section 2 Equivalent Cluties Attached 18.0 Appendix H Procedures Followed; or B. TRAINING AND EXPERIENCE Supplements A & B Attached for Each Individual User; Equivalent Procedures Attached 17. AREA SURVEY PROCEDURES (Check One) Supplement A Attached for RSO. Appendix I Procedures Followed; or 14.0 9. INSTRUMENTATION (Check One) X Equivalent Procedures Attached Appendix C Form Attached; or 18. WASTE DISPOSAL (Check One) List by Name and Model Number 10. CALIBRATION OF INSTRUMENTS Appendix J Form Attached; or 15.0 Appendix D Procedures Followed for Survey Equivalent Information Attached X Instruments; or - (Check One) THERAPEUTIC USE OF RADIOPHARMACEUTICALS 19 Equivalent Procedures Attached; and (Check One) 12.0, 14.0, Appendix D Propedures Followed for Dose Appendix K Procedures Followed; or Calibrator; or - (Check One) Equivalent Procedures Attached Equivalent Procedures Attached 20. THERAPEUTIC USE OF SEALED SOURCES 11. FACILITIES AND EQUIPMENT Detailed Information Attached; and 14.0 Description and Diagram Attached Appendix L Procedures Followed; or 12. PERSONNEL TRAINING PROGRAM X (Check One) 5.0, 3.1.6, Description of Training Attached Equivalent Procedures Attached 3.3.8 PROCEDURES AND PRECAUTIONS FOR USE OF PROCEDURES FOR ORDERING AND RECEIVING 21. RADIOACTIVE GASES (e.g., Xenon - 133) RADIOACTIVE MATERIAL Detailed Information Attached 9.0, 10.1-10.3 Detailed Information Attached PROCEDURES AND PRECAUTIONS FOR USE OF PROCEDURES FOR SAFELY OPENING PACKAGES 22. RADIOACTIVE MATERIAL IN ANIMALS CONTAINING RADIOACTIVE MATERIALS 14. Detailed Information Attached (Check One) 21.0 PROCEDURES AND PRECAUTIONS FOR USE OF Appendix F Procedures Followed; or 23. RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.b. Radiation Safety Detailed Information Attached X | Equivalent Procedure: Attached Program

		24. PERSONNEL MONITO	MING DEVICES	
(Check a	TYPE  ppropriate box?	SUPPLIER		EXCHANGE FREQUENCY
X	FILM	Siemens		Monthly
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