U.S. NUCLEAR REGULATORY COMMISSION APPROVED BY OMB 3150-0120 Expires: 5-31-87

APPLICATION FOR MATERIAL LICENSE INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION, SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW IF YOU ARE LOCATED IN: FEDERAL AGENCIES FILE APPLICATIONS WITH: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR U.S. NUCLEAR REGULATORY COMMISSION DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS WASHINGTON, DC 20555 WISCONSIN, SEND APPLICATIONS TO U.S. NUCLEAR REGULATORY COMMISSION, REGION III MATERIALS LICENSING SECTION 799 ROOSEVELT ROAD ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE GLEN ELLYN, IL 60137 CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNEYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO: ARKANSAS, COLOFADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO: U.S. NUCLEAR REGULATORY COMMISSION, REGION IV MATERIAL RADIATION PROTECTION SECTION 611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TX 76011 U.S. NUCLEAR REGULATORY COMMISSION, REGION I NUCLEAR MATERIAL SECTION B 631 PARK AVENUE KING OF PRUSSIA, PA 19406 ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEF, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO: ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS U.S. NUCLEAR REGULATORY COMMISSION, REGION V MATERIAL RADIATION PROTECTION SECTION 1450 MARIA LANE, SUITE 210 WALNUT CREEK, CA 94596 U.S. NUCLEAR REGULATORY COMMISSION, REGION II MATERIAL RADIATION PROTECTION SECTION 101 MARIETTA STREET, SUITE 2900 ATLANTA, GA 30323 PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION. 2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code) 1. THIS IS AN APPLICATION FOR (Check appropriate item) Millinocket Regional Hospital A. NEW LICENSE B. AMENDMENT TO LICENSE NUMBER _ 200 Somerset Street C. RENEWAL OF LICENSE NUMBER __ 18-15127-01 Millinocket, ME 04462 3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED. SAME TELEPHONE NUMBER 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION (207) 723-5161 Beverly Mingo, NMT SUBMIT ITEMS 5 THROUGH 11 ON 8% x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE 6. PURPOSE(S) FOR WHIC LICENSED MATERIAL WILL BE USED. 5. RADIOACTIVE MATERIAL imber, b. chemical and/or physical form, and c. maximum amount a. Element and mass number, b. cheming which will be possessed at any one time. B. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE. 10. RADIATION SAFETY PROGRAM. 9. FACILITIES AND EQUIPMENT 12. LICENSEE FEES (See 10 CFR 170 and Section 170.31) AMOUNT ENCLOSED \$580.00 FEE CATEGORY 7 C 11. WASTE MANAGEMENT CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CER' JFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1501 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. TITLE TYPED/PRINTED NAME SIGNATURE-CERTIFYING OFFICER Chief Executive Officer Joseph Roach b. NUMBER OF EMPLOYEES / Total for d WOULD YOU & ANNUAL RECEIPTS entire facility exclud

WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Joilar and/or staff hours)
ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE
PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit
it to protect confidential commercial or financial—proprietary—information furnished to
the agency in confidence) \$1M-3.5M <\$250K \$3.5M-7M \$250K-500K C NUMBER OF BEDS \$7M-10M \$500K -- 750K YES >\$10M \$750K-1M FOR NRC USE ONLY APPROVED BY

FEE CATEGORY TYPE OF FEE

CHECK NUMBER

8903140849 880226 REG1 LIC30 18-15127-01 PNU

DATE

AMOUNT RECEIVED

Moc

ITEMS 5 AND 6 (RADIOACTIVE MATERIAL AND PURPOSE)

Byproduct Material	Amount	Purpose
5a. Material in 35.100	As Needed	6a. Medical Uta
5b. Material in 35.200	As Needed	6b. Medical Use
5c. I-131 as iodide	As Needed	6c. Treatment of hy- perthyroidism and cardiac dysfunc- tion

ITEM 7 (INDIVIDUALS RESPONSIBLE FOR RADIATION SAFETY)

7.1 AUTHORIZED USERS

Physician	Proposed Uses	Documentation
John Y. Connolly, M.D.	5a, 5b	Previously authorized on current license
John Y. Connolly, M.D.	5c	Preceptor statements attached (*).
Rufus Head, M.D.	5a, 5b, 5c	Previously authorized on current license

7.2 NON-MEDICAL USERS

NONE

7.3 RADIATION SAFETY OFFICER

John Y. Connolly, M.D. (Curriculum vitae on file with the NRC under license 18-15127-01)

(*) It should be noted that Dr. Head practices at both the Millinocket Regional Hospital and the Penobscot Valley Hospital. His preceptor statement has the latter address, but all cases were done at the Millinocket Regional Hospital. Additional information concerning Dr. Connolly's training and experience has been filed previously with the Commission under license 18-15127-01.

ITEM 8 (TRAINING)

8.1 TRAINING PROGRAM

We will establish and implement the model training program that was published in Appendix A to Regulatory Guide 10.8, Revision 2, and show below table ATT. 8.1 that identifies the groups of workers who will receive training and the method of training. The frequency of training will be as specified inAppendix A.

TABLE ATT 8.1

Group	Method
Nuclear Medicine Technologists	Lecture by RSO or designee
Housekeeping	Videotape, slide-tape or lecture by RSO or designee
Nursing	Videotape, slide-tape or lecture by RSO or designee
Clerical	Videotape, slide-tape or lecture by RSO or designee

8.2 OTHER TRAINING PROGRAM
NOT APPLICABLE

ITEM 9 (FACILITIES AND EQUIPMENT)

9.1 ANNOTATED DRAWING

See enclosed attachments ATT 9.1 and ATT 9.1a

9.2 SURVEY INSTRUMENT CALIBRATION

We will establish and implement the model procedure for calibrating survey instruments that was published in Appendix B to Regulatory Guide 10.2, Revision 2

9.3 DOSE CALIBRATOR CALIBRATION

We will establish and implement the model procedures for calibrating our dose calibrator that were published in Appendix C to Regulatory Guide 10.8, Revision 2.

9.4 PERSONNEL MONITOR PROGRAM

We will establish and implement the model personnel external exposure monitoring program published in Appendix D to Regulatory Guide 10.8, Revision 2.

9.5 IMAGING EQUIPMENT (MOBILE SERVICE)

NOT APPLICABLE

9.6 OTHER EQUIPMENT AND FACILITIES

ITEM 10 (RADIATION SAFETY PROGRAM)

10.1 RADIATION SAFETY COMMITTEE

We will issue the model Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority that was published in Appendix F to Regulatory Guide 10.8, Revision 2.

10.2 ALARA PROGRAM

We will establish and implement the model ALARA program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

10.3 LEAK TEST

We will establish and implement the model procedure for leak-testing sealed sources that was published in Appendix H of Regulatory Guide 10.8, Revision 2.

10.4 SAFE USE OF RADIOPHARMACEUTICALS

We will establish and implement the model safety rules published in Appendix I to Regulatory Guide 10.8, Revision 2.

10.5 SPILL PROCEDURES

We will establish and implement the model spill procedures published in Appendix J to Regulatory Guide 10.8, Revision 2.

10.6 ORDERING AND RECEIVING

We will establish and implement the model guidance for ordering and receiving radioactive material that was published in Appendix K to Regulatory Guide 10.8, Revision 2.

10.7 OPENING PACKAGES

We will establish and implement the model guidance for opening packages that was published in Appendix L to Regulatory Guide 10.8, Revision 2.

10.8 UNIT DOSAGE RECORDS

We will establish and implement the model procedure for a unit dosage record system that was published in Appendix M.1 to Regulatory Guide 10.8, Revision 2.

10.9 MULTIDOSE VIAL RECORDS

We will establish and implement the model procedure for a multidose vial record system that was published in Appendix M.2 to Regulatory Guide 10.8, Revision 2.

10.10 MOLYBDENUM CONCENTRATION RECORDS

We will establish and implement the model procedure for measuring and recording molybdenum concentration that was published in Appendix M.3 to Regulatory Guide 10.8, Revision 2.

10.11 IMPLANT SOURCE USE RECORDS

NOT APPLICABLE

10.12 AREA SURVEY PROCEDURES

We will establish and implement the model procedure for area surveys that was published in Appendix N to Regulatory Guide 10.8, Revision 2.

10.13 AIR CONCENTRATION CONTROL

NOT APPLICABLE

10.14 RADIOPHARMACEUTICAL THERAPY (OVER 30 mCi)
NOT APPLICABLE

10.15 IMPLANT THERAPY
NOT APPLICABLE

10.16 OTHER SAFETY PROCEDURES
NOT APPLICABLE

ITEM 11 (WASTE MANAGEMENT)

11.1 WASTE DISPOSAL

We will establish and implement the general guidance and model procedure for waste disposal that were published in Appendix R to Regulatory Guide 10.8, Revision 2.

11.2 OTHER WASTE DISPOSAL NOT APPLICABLE

C FORM 313M SUPPLEMENT A

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER
John Yahner Connolly, M.D.

2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE Maine/Connecticut

SPECIALTY BOARD	CATEGORY	MONTH AND YEAR CERTIFIED
diology	Diagnostic Radiology	June 1985

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

		TYPE AND LENGTH OF TRAINING		
FIELD OF TRAINING	LOCATION AND DATE (S) OF TRAINING	LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours)	
a. RADIATION PHYSICS AND INSTRUMENTATION	St. Vincent's Medical Car. 2800 Main Street Bridgeport, CT 06606	100 hours		
b. RADIATION PROTECTION	Same as above	30 hours	10 mm and 10 mm	
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	Same as Above	20 hours		
d. RADIATION BIOLOGY	Same as above	20 hours	***	
e. RADIOPHARMACEUTICAL CHEMISTRY	Same as above	30 hours		

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

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
99mTc I-131 Xe-133 Gallium	200mCi 8mCi 200mCi	St. Vincent's Med. Ctr. Same Same Same	4 months 4 months 4 months 4 months	Diagnostic Therapeutic Diagnostic Diagnostic

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 JOHN Y. CONNOLLY, M.D. STREET ADDRESS Millinocket Regional Hospital 200 Sommerset Street CITY STATE ZIP CODE Millinocket Maine 04462 Maine 04462

KEY TO COLUMN C
PERSONAL PARTICIPATION SHOULD CONSIST OF:

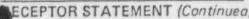
- 1-Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage.
- 2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data.
- 3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE	CONDITIONS DIAGNOSED OR TREATED	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	(Additional information or comments may be submitted in duplicate on separate sheets.)
	DIAGNOSIS OF THYROID FUNCTION		A TOTAL CONTRACTOR OF THE PROPERTY OF THE PROP
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
1-131	LIVER FUNCTION STUDIES		
or 1-125	FAT ABSORPTION STUDIES		
ars.	KIDNEY FUNCTION STUDIES		
	IN VITRO STUDIES		
OTHER			
1-125	DETECTION OF THROMBOSIS		7
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Se- 75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	****		
	BRAIN IMAGING		
	CARDIAC IMAGING		
	THYROID IMAGING		
	SALIVARY GLAND IMAGING		• .
Tc-99m	BLOOD POOL IMAGING		
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING		
	LUNG IMAGING		
	BONE IMAGING		
OTHER			

NRC FORM 313M SUPPLEMENT B (9-81)

Page 6



	ECEPTOR	STATEMENT	(Continuea,	
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_		TO A IALLA A ALIO	EXPERIENCE OF	ADDIVE BLARKED	DUVCICIAN	(Continued)
2	CLINICAL	TRAINING AND	EXPERIENCE OF	MOUNE INWINED	FILLDICIAIS	(Continuou)

ISOTOPE	CONDITIONS DIAGNOSED OR TREATED	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.)
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES		
P-32 (Colloidal)	INTRACAVITARY TREATMENT		
	TREATMENT OF THYROID CARCINOMA		
1-131	TREATMENT OF HYPERTHYROIDISM	5	
Au-198	INTRACAVITARY TREATMENT		
Co-60	INTERSTITIAL TREATMENT		
or Cs-137	INTRACAVITARY TREATMENT		.1
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Co-60 or Cs-137	TELETHERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR		
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS		
Other		THE RESERVE THE PROPERTY OF T	
3. DATES	AND TOTAL NUMBER OF HOURS RECE		
		Targer Mrs Auss	TOME GOVERN PROPERTY.
	RAINING AND EXPERIENCE INDICATED BTAINED UNDER THE SUPERVISION OF		PTOR'S SIGNATURE
& NAN	ME OF SUPERVISOR	- no	vant, communicate document.
	RUFUS Head, M.D.		e para di care e e e e e e e e e e e e e e e e e e
b. NAN Pe	ME OF INSTITUTION PRODUCT Valley Hospital	7. PRECE	PUFIS HEAD M.D.
	LING ADDRESS	W.	In Atlendant
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d. CIT	incoln, Maine " 04457	1	The state of the s

NRC FORM 313M SUPPLEMENT B (9-81)

The second second

1" 11 "

Spare Room 1. Generator with lead mollycoddle 5 shield. 2. Hot Plate with lead shield Waste baskets under cabinet with lead shield Hot Lab. 4. Dose Calibrator

5. Lead bricks 2" x 4" each around check sources and iodine

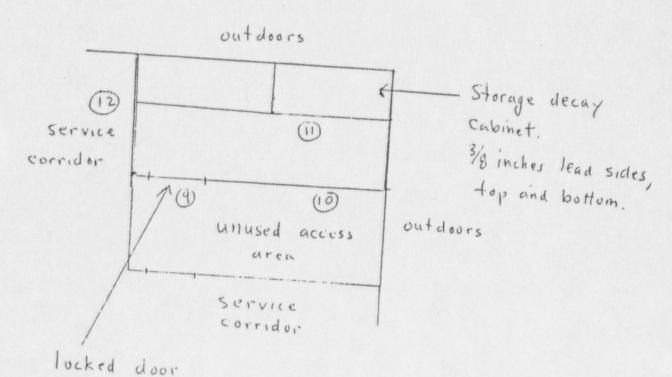
6. Lead preparation shield. 4 Outside SINK [STAR Cabinets COMPUTER Areas in basement beneath hot lab and scanning room include: File 1. Housekeeping office Cabinet beneath hot lab. Scanning Room 2. Oxygen storage rm. beneath scanning rm. Desk Table File Camera Famma Suction Cabinets Pharmacy

Reviewed 725 84

I sotope storage Hrea

8x4 Feet

On Ground Floor - Busement Hrea



Posted Caution - Kadiation Area

- A.) (9) = monitoring areas
- B.) Storage decay cabinet has caution -Radioactive Lubels attached

Reviewed 7-25.86

(FOR LFMS USE) 20. -INFORMATION FROM LMS BETWEEN: LICENSE FEE MANAGEMENT BRANCH, ARM PROGRAM CODE: 02120 STATUS CODE: 2 AND : FEE CATEGORY: 7C REGIONAL LICENSING SECTIONS : EXP. DATE: 19871130 : FEE COMMENTS: _ 03 00 86/1 LICENSE FEE TRANSMITTAL REGION _ 1. APPLICATION ATTACHED APPLICANT/LICENSEE: MILLINOCKET REGIONAL HOSPITAL 871022 RECEIVED DATE: DOCKET NO: 3008615 107969 CONTROL NO .: 18-15127-01 LICENSE NO.: ACTION TYPE: RENEWAL 2. FEE ATTACHED 580 : TAUCMA CHECK NO .: 3. COMMENTS B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED / 1. FEE CATEGORY AND AMOUNT: 20 CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR: AMENDMENT RENEWAL ----LICENSE 3. OTHER SIGNED DATE