



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
1000 SOUTHWEST JACKSON SUITE 330
TOPEKA KANSAS 66612-1365**

APPLICATION FOR RADIOACTIVE MATERIALS LICENSE - MEDICAL

INSTRUCTIONS - Complete Items 1 through 23. Use supplemental sheets where necessary. Item 23 must be completed on all applications. Maintain one copy for your records and mail one copy **along with applicable fee if applying for a new license** to: Kansas Department of Health and Environment, Bureau of Environmental Health, Radiation Control Program, 1000 SW Jackson, Suite 330, Topeka, Kansas 66612-1365. Telephone: (785) 296-1560. Upon approval of this application, the applicant will receive a Kansas Radioactive Materials License, issued in accordance with the general requirements contained in State of Kansas, Department of Health and Environment, Radiation Protection Regulations and the Kansas Nuclear Energy Development and Radiation Control Act.

1. a. Name And Complete Mailing Address of Applicant	1.b. Street Address(es) where Radioactive Material Will Be Used
Phone No. :	
2. Person to Contact Regarding this Application:	
E-mail:	Phone No. :
3. Type of Application <input type="checkbox"/> New License <input type="checkbox"/> Amendment <input type="checkbox"/> Renewal License No.:	
4. Individuals Who Will Use or Directly Supervise the Use of Radioactive Material (Attach Training and Experience Supplement A & B)	
5. RADIATION SAFETY OFFICER (Attach training and experience Supplement A if not previously provided).	
Name:	
<input type="checkbox"/> Duties and responsibilities are as described in the Medical Program Licensing Guide Appendix C	
<input type="checkbox"/> Duties and responsibilities in addition to those described in the Medical Program Licensing Guide Appendix C are attached.	

6. a. RADIOACTIVE MATERIAL FOR MEDICAL USE				
Radionuclide	Chemical and/or physical form			MAXIMUM POSSESSION LIMIT (millicuries)
<input type="checkbox"/> Any radioactive material permitted by 10 CFR 35.100 as adopted by reference in K.A.R. 28-35-264	Any radiopharmaceutical permitted by 10 CFR 35.100 as adopted by reference in K.A.R. 28-35-264 for diagnostic studies involving measurements of uptake, dilution and excretion.			As Needed
<input type="checkbox"/> Any radioactive material permitted by 10 CFR 35.200 as adopted by reference in K.A.R. 28-35-264	Any radiopharmaceutical permitted by 10 CFR 35.200 as adopted by reference in K.A.R. 28-35-264 for diagnostic studies involving imaging and tumor localizations.			As Needed
<input type="checkbox"/> Any radioactive material permitted by 10 CFR 35.300 as adopted by reference in K.A.R. 28-35-264	Any radiopharmaceutical permitted by 10 CFR 35.300 for any diagnostic study or therapy procedure requiring a written directive which the patient can be released pursuant to 10 CFR 35.75 as adopted by reference in K.A.R. 28-35-264			
<input type="checkbox"/> Any radioactive material permitted by 10 CFR 35.300 as adopted by reference in K.A.R. 28-35-264	Any radiopharmaceutical permitted by 10 CFR 35.300 as adopted by reference in K.A.R. 28-35-264 for therapeutic use requiring a written directive			
<input type="checkbox"/> Any radioactive material permitted by 10 CFR 35.400 as adopted by reference in K.A.R. 28-35-264	Any brachytherapy source permitted by 10 CFR 35.400 as adopted by reference in K.A.R. 28-35-264 for therapeutic use requiring a written directive			
6. b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. This could include calibration and reference sources or isotopes not included in section 6.a				
Radionuclide	Chemical and/or physical form (If sealed source, state the manufacturer & model number).	Maximum Activity per Source (mCi)	Maximum Possession Limit (mCi)	Describe Use
7. RADIATION SAFETY COMMITTEE				
<input type="checkbox"/> The Radiation Safety Committee is as described in the Medical Program Licensing Guide Appendix B				
<input type="checkbox"/> Description of the Radiation Safety Committee is attached.				
<input type="checkbox"/> This application is for a private practice and a Radiation Safety Committee is not required.				
8. INSTRUMENTATION: Attach a completed Appendix D from the Medical Program Licensing Guide or equivalent information.				
9. a. CALIBRATION OF INSTRUMENTS				
<input type="checkbox"/> Radiation survey instruments will be calibrated by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number:				
<input type="checkbox"/> Radiation survey/monitoring instruments will be calibrated using the model calibration procedures in the Medical Program Licensing Guide Appendix E.				
<input type="checkbox"/> Radiation survey/monitoring instruments will be calibrated using the attached procedures.				
9. b. CALIBRATION OF DOSE CALIBRATORS				
<input type="checkbox"/> Dose calibrators will be calibrated by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number:				
<input type="checkbox"/> Dose calibrators will be calibrated using the model calibration procedure in the Medical Program Licensing Guide Appendix E.				
<input type="checkbox"/> Procedure for calibration of dose calibrators is attached.				

10. FACILITIES AND EQUIPMENT Attach a sketch and a complete description of the facility and equipment.
11. PERSONNEL TRAINING PROGRAM <input type="checkbox"/> The personnel training program will be conducted as described in the Medical Program Licensing Guide Appendix R. <input type="checkbox"/> A description of the personnel training program is attached.
12. ORDERING AND RECEIPT OF RADIOACTIVE MATERIAL <input type="checkbox"/> Ordering and receipt of radioactive material will be as described in the Medical Program Licensing Guide Appendix F. <input type="checkbox"/> Procedure for ordering and receipt of radioactive material is attached.
13. SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIAL <input type="checkbox"/> Opening packages containing radioactive material will be as described in the Medical Program Licensing Guide Appendix G. <input type="checkbox"/> Procedure for opening packages containing radioactive material is attached.
14. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL <input type="checkbox"/> General rules for the safe use of radioactive material will be as described in the Medical Program Licensing Guide Appendix H. <input type="checkbox"/> General rules for the safe use of radioactive material are attached.
15. EMERGENCY PROCEDURES <input type="checkbox"/> Emergency procedures will be as described in the Medical Program Licensing Guide Appendix I. <input type="checkbox"/> Emergency procedures are attached.
16.a. BIOASSAY PROGRAM <input type="checkbox"/> Bioassay sampling procedure is attached <input type="checkbox"/> There is no bioassay sampling requirement for this license. 16.b. SEALED SOURCE LEAK TESTING <input type="checkbox"/> Sealed source leak testing by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number: <input type="checkbox"/> Sealed source leak testing will be as described in the Medical Program Licensing Guide Appendix P. <input type="checkbox"/> Procedure for sealed source leak testing is attached. 16.c. ALARA PROGRAM <input type="checkbox"/> ALARA program will be as described in the Medical Program Licensing Guide Appendix S. <input type="checkbox"/> ALARA program description is attached. 16.d. MOLYBDENUM-99 BREAKTHROUGH <input type="checkbox"/> Molybdenum-99 breakthrough will be as described in the Medical Program Licensing Guide Appendix Q. <input type="checkbox"/> Molybdenum-99 breakthrough description is attached. <input type="checkbox"/> Only unit doses are used therefore the determination of Molybdenum-99 breakthrough is not required for this license. 16.e. USE OF POSITRON EMISSION TOMOGRAPHY (P.E.T.) RADIOPHARMACEUTICALS <input type="checkbox"/> Complete description for the use of Positron Emission Tomography (P.E.T) radiopharmaceuticals on this license is attached. <input type="checkbox"/> Positron Emission Tomography (P.E.T) radiopharmaceuticals will not be used on this license.

16.f. MOBILE NUCLEAR MEDICINE SERVICE

- Mobile Nuclear Medicine Service will be as described in the Medical Program Licensing Guide Appendix T
- Mobile Nuclear Medicine Service description is attached.
- Mobile Nuclear Medicine Service is not requested and will not be performed on this license..

17. AREA SURVEY PROCEDURES

- Area radiation and contamination surveys will be as described in the Medical Program Licensing Guide Appendix J.
- Procedure for area radiation and contamination surveys is attached.

18. WASTE DISPOSAL: Attach a completed Appendix K from the Medical Program Licensing Guide or equivalent information.

19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS

- Therapeutic use of radiopharmaceuticals greater than 30 millicuries will be as described in the Medical Program Licensing Guide Appendix L.
- Procedure for therapeutic use of radiopharmaceuticals greater than 30 millicuries is attached.
- Therapeutic use of radiopharmaceuticals is not requested and will not be performed on this license.

20. THERAPEUTIC USE OF SEALED SOURCES

- Therapeutic use of sealed sources for the treatment of patients will be as described in the Medical Program Licensing Guide Appendix M.
- Procedure for therapeutic use of sealed sources for the treatment of patients is attached.
- Therapeutic use of sealed sources for the treatment of patients is not requested and will not be performed on this license.

21. USE OF RADIOACTIVE GASES AND AEROSOLS

- Procedure for use of radioactive gases and aerosols is attached and includes all the information required by the Medical Program Licensing Guide Appendix N.
- Use of radioactive gases and aerosols is not requested and will not be performed on this license.

22. PERSONNEL MONITORING DEVICES

	TYPE	SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY	FILM		
	TLD		
	OTHER (SPECIFY)		
b. FINGER	FILM		
	TLD		
	OTHER (SPECIFY)		
c. OTHER (SPECIFY)	FILM		
	TLD		
	OTHER (SPECIFY)		

CERTIFICATE

(This item must be completed by applicant)

23. The applicant and any official executing this certificate on behalf of the applicant in Item 1, certify that this application is prepared in conformity with State of Kansas, Department of Health and Environment, Radiation Protection Regulations and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

- a. APPLICANT OR CERTIFYING OFFICIAL (Signature)

NAME (Type or Print)

TITLE

- b. DATE:

BUSINESS ID OR FEDERAL TAX ID # _____

RH-10A

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STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF ENVIRONMENTAL HEALTH, RADIATION CONTROL PROGRAM
1000 SW JACKSON, SUITE 330, TOPEKA, KS 66612-1365

ADDITIONAL AUTHORIZATION REQUEST: HUMAN USE

1. Licensee _____ License No. _____

2. Address _____

3. Names of physicians desiring authorizations listed under (4) below:

a. _____ b. _____ c. _____

4. Authorization desired:

Isotope	Chemical form	Authorized use	limit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. Signature of applicant:

a. If the license is in name of an institution,
Chairman of Radiation Safety Committee
must sign below.

b. If license is name of individual,
the individual must sign below.

R.S.C. Chairman

Date

Licensee

Date

**TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY (PROTECTION) OFFICER**

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY (PROTECTION) OFFICER _____

2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE _____

a. KANSAS CERTIFICATE NO. _____ b. OTHER CERTIFICATE NO. _____

c. DEPARTMENT _____ d. MEDICAL SPECIALTY _____

e. AUTHORIZATIONS DESIRED:
 Internal administration, diagnostic Brachytherapy
 Internal administration, therapeutic Teletherapy
 In-Vitro studies Research

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
The American Board of Health Physics	Health Physics	
The American Board of Nuclear Medicine	Nuclear Medicine	
The American Board of Radiology	Diagnostic Radiology	
The American Board of Radiology	Radiologic Physics – Diagnostic Radiologic Physics	
The American Board of Radiology	Radiologic Physics – Therapeutic Radiologic Physics	
The American Board of Radiology	Radiologic Physics – Medical Nuclear Physics	
The American Board of Radiology	Radiation Oncology	
Other (Specify)		

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	Type and Length of Training (hours)	
		Lecture Laboratory Course C	Supervised Laboratory Experience D
a. Radiation Physics And Instrumentation			
b. Radiation Protection			
c. Mathematics Pertaining to the Use and Measurement of Radioactivity			
d. Radiation Biology			
e. Radiopharmaceutical Chemistry			

SUPPLEMENT B

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STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
PRECEPTOR STATEMENT

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

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS	KEY TO COLUMN C
FULL NAME	PERSONAL PARTICIPATION SHOULD CONSIST OF: 1. Supervised examination of patients to determine the suitability for radioisotopes diagnosis and or treatment. 2. Collaboration in dose calibration and actual administration of dose to the patient, including calculation of the radiation dose, related measurement and plotting of data. 3. Adequate period of training to enable physicians to manage radioactive patients and follow patients through diagnoses and/or course of treatment.
STREET ADDRESS	
CITY STATE ZIP CODE	

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted on separate sheets)
I-131 OR I-125	DIAGNOSIS OF THYROID FUNCTION		
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES		
	IN VITRO STUDIES		
Co-57, 58 or 60	B12 ABSORPTION STUDIES		
Cr-51	DETERMINATION OF BLOOD VOLUME AND RBC SURVIVAL TIME		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted on separate sheets)
Ga-67	DETECTION OF HODGKIN'S DISEASE AND SOFT TISSUE TUMOR LOCALIZATION		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
Tl-201	MYOCARDIAL PERFUSION IMAGING		
OTHER			
Tc-99m	BRAIN IMAGING		
	CARDIAC IMAGING		
	THYROID IMAGING		
	SALIVARY GLAND IMAGING		
	BLOOD POOL IMAGING		
	PLACENTAL LOCALIZATION		
	LIVER AND SPLEEN IMAGING		
	LUNG IMAGING		
	BONE IMAGING		
OTHER			
P-32 Soluble	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASIS		
P-32 Colloidal	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF HYPERTHYROIDISM AND CARDIAC CONDITION		
	TREATMENT OF THYROID CARCINOMA		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Ra-226	INTERSTITIAL TREATMENT		
Ra-226	INTRACAVITARY TREATMENT		
Rn-222	INTERSTITIAL TREATMENT		

Co-60 or Cs-137	TELE THERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		

3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:
a. NAME OF SUPERVISOR:
b. NAME OF INSTITUTION:
c. MAILING ADDRESS:
d. CITY
5. RADIOACTIVE MATERIALS LICENSE NUMBER(S)
6. PRECEPTOR'S SIGNATURE:
7. PRECEPTOR'S NAME (Please type or Print)
DATE:

APPENDIX K

RADIOACTIVE WASTE DISPOSAL PROCEDURES

1. Liquid waste disposal: (Check as appropriate)

___ By commercial waste disposal service, NRC/Agreement State License Number: _____
Name and address _____

___ Liquid waste will be disposed in the sanitary sewer system in accordance with K.A.R. 28-35-224a.

___ Radioactive material with less than 120 day half-life will be held for decay until radiation levels as measured from the unshielded material, with an appropriate survey meter set on the most sensitive scale, are not distinguishable from background. All radiation labels will be removed or obliterated and the waste will be disposed in normal trash.

___ Other (specify):

2. Mo-99/Tc-99m generators disposal: (Check as appropriate)

___ Generators will be returned to the manufacturer for disposal.

___ Radioactive material with less than 120 day half-life will be held for decay until radiation levels as measured from the unshielded material, with an appropriate survey meter set on the most sensitive scale, are not distinguishable from background. All radiation labels will be removed or obliterated and the waste will be disposed in normal trash. (Note: This method of disposal may not be practical for generators containing long-lived radioactive contaminants.)

___ By commercial waste disposal service, NRC/Agreement State License Number: _____
Name and address _____

___ Mo-99/Tc-99m generators will not be used on this license.

___ Other (specify):

3. Other solid waste disposal: (Check as appropriate)

___ Radioactive material with less than 120 day half-life will be held for decay until radiation levels as measured from the unshielded material, with an appropriate survey meter set on the most sensitive scale, are not distinguishable from background. All radiation labels will be removed or obliterated and the waste will be disposed in normal trash.

___ By commercial waste disposal service NRC/Agreement State License Number: _____
Name and address _____

___ Other (specify):