NEW LICENSE APPLICATION
(LIMITED TO NARM)

FOR

Cardiac Diagnostic Center, LLC
St. Anthony's Medical Building B
10004 Kennerly Rd., Suite 281-B
St. Louis, MO 63128

Phone #: (314) 525-4320
Fax #: (314) 543-5289

COPY #1 NRC

Attach check to NRC on this copy
Attach completed "Request for Taxpayer Identification Number" to this copy

RECEIVED SEP 1 8 2009

NRC FORM 313 (3-2009) 10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 **EXPIRES: 3/31/2012**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND
ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

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 JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [x] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER
- [ ] C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*

Cardiac Diagnostic Center, LLC.
St. Anthony's Medical Building - B
10004 Kennerly Rd., Suite 281B
St. Louis, MO 63128

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Same

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Tom Dickinson, Consultant-Assoc. in Medical Physics, LLC.

TELEPHONE NUMBER

(314) 406-3346

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY **7C** AMOUNT ENCLOSED $ **2,300.00**

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 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.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE: **A. Rashid Qureshi, M.D., Partner/Owner**

SIGNATURE

DATE

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	

Table C.2 Items 5 and 6 on NRC Form 313: Radioactive Material and Use

(If using this checklist, check applicable rows and fill in details, and attach copy of checklist to the application.)

☑ Yes ☐ No	This response includes security-related sensitive information (see Section 5.2) which is included in Attachment Item 9 and marked "Security-related information – withhold under 10 CFR 2.390"

Yes	Radionuclide	Form or Manufacturer/ Model No.	Maximum Quantity	Purpose of Use
	Any byproduct material permitted by 10 CFR 35.100	Any	As needed	Any uptake, dilution, and excretion study permitted by 10 CFR 35.100.
✓	Any byproduct material permitted by 10 CFR 35.200 Limited to NARM	Any	As needed	Any imaging and localization study permitted by 10 CFR 35.200.
	F-18	Any	_____ curies	Production of PET radioactive drugs under 10 CFR 30.32(j).
	O-15	Any	_____ curies	Production of PET radioactive drugs under 10 CFR 30.32(j).
	C-11	Any	_____ curies	Production of PET radioactive drugs under 10 CFR 30.32(j).
	Any byproduct material permitted by 10 CFR 35.300	Any	_____ millicuries	Any radiopharmaceutical therapy procedure permitted by 10 CFR 35.300.
	Iodine-131	Any	___millicuries	Administration of I-131 sodium iodide.
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide _____)	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide _____)	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide _____)	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide _____)	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.

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Table C.2 Items 5 and 6 on NRC Form 313: Radioactive Material and Use

(If using this checklist, check applicable rows and fill in details, and attach copy of checklist to the application.)

Yes	Radionuclide	Form or Manufacturer/ Model No.	Maximum Quantity	Purpose of Use
	Strontium-90	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	Treatment of superficial eye conditions using an applicator distributed pursuant to 10 CFR 32.74 and permitted by 10 CFR 35.400.
	Byproduct material permitted by 10 CFR 35.500 Check all that apply: ❒ Gd-153; ❒ I-125; ❒ Other, describe	Sealed source or device (Manufacturer _____, Model No._____)	___curies per source and ___curies total	Diagnostic medical use of sealed sources permitted by 10 CFR 35.500 in compatible devices registered pursuant to 10 CFR 30.32(g).
	Iridium-192	Sealed source or device (Manufacturer _____, Model No._____)	___curies per source and ___curies total	One source for medical use permitted by 10 CFR 35.600, in a Manufacturer _____, Model No. _____ remote afterloading brachytherapy device. One source in its shipping container as necessary for replacement of the source in the remote afterloader device.
	Cobalt-60	Sealed source or device (Manufacturer _____, Model No._____)	___curies per source and ___curies total	One source for medical use permitted by 10 CFR 35.600, in a Manufacturer _____, Model No. _____ teletherapy unit. One source in its shipping container as necessary for replacement of the source in the teletherapy unit.
	Cobalt-60	Sealed source or device (Manufacturer _____, Model No._____)	___curies per source and ___curies total	For medical use permitted by 10 CFR 35.600, in a Manufacturer _____, Model No. _____ stereotactic radiosurgery device. Sources in the shipping container as necessary for replacement of the sources in the stereotactic

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Table C.2 Items 5 and 6 on NRC Form 313: Radioactive Material and Use
(If using this checklist, check applicable rows and fill in details, and attach copy of checklist to the application.)

Yes	Radionuclide	Form or Manufacturer/ Model No.	Maximum Quantity	Purpose of Use
				radiosurgery device.
	Any byproduct material under 10 CFR 31.11	Prepackaged kits	___millicuries	*In vitro* studies.
	Depleted uranium	Metal	___kilograms	Shielding in a teletherapy unit.
	Depleted uranium	Metal	___kilograms	Shielding in a linear accelerator.
	Any radionuclide in excess of 30 millicuries for use in calibration, transmission, and reference sources. (List radionuclide: _____)	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries	For use in a Manufacturer _____, Model No. _____ for calibration and checking of licensee's survey instruments.
	Americium-241	Sealed source or device (Manufacturer _____, Model No._____)	___millicuries per source and ___millicuries total	Use as an anatomical marker.
	Plutonium (principal radionuclide Pu-238)	Sealed sources	___millicuries per source and ___grams total	As a component of Manufacturer _____, Model No. _____ nuclear-powered cardiac pacemakers for clinical evaluation in accordance with manufacturer's protocol dated _____. This authorization includes: follow-up, explantation, recovery, disposal, and implantation.
	Other	Form or Manufacturer/Model No. _____	___millicuries	Purpose of use _____.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
Item 7: Radiation Safety Officer Name:	*For an individual previously identified as an RSO on an NRC or Agreement State license or permit:*	
	Previous license number (if issued by the NRC), or a copy of a license (if issued by an Agreement State), or a copy of a permit (if issued by an NRC master materials licensee) on which the individual was specifically named as the RSO.	❒
Timothy E. Yarber, R.T., (R)(N)	*For an individual qualifying under 10 CFR 35.57(a)(3):*	
	Documentation that the individual was: • the RSO for only the medical uses of accelerator-produced radioactive material or discrete sources of Ra-226 included in the definition of byproduct material as a result of the EPAct; • the RSO for the medical uses of these materials before or during the effective period of NRC's waiver of August 31, 2005.	☒
	For an individual qualifying under 10 CFR 35.50(a):	
	Copy of certification by a specialty board whose certification process has been recognized[10] by NRC or an Agreement State under 10 CFR 35.50(a). **AND**	❒
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed training in and experience required for certification, as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒

[10]The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site http://www.nrc.gov/materials/miau/med-use-toolkit.html.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual qualifying under 10 CFR 35.50(b):	
	Description of the training and experience specified in 10 CFR 35.50(b) demonstrating that the proposed RSO is qualified by training and experience as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the required training and experience specified in 10 CFR 35.50(b), as well as the training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
	For an individual qualifying under 10 CFR 35.50(c)(1):	
	Copy of the certification(s) as a medical physicist by a board whose certification process has been recognized[11] by the NRC or an Agreement State under 10 CFR 35.51(a) and description of the experience specified in 10 CFR 35.50(c)(1) demonstrating that the proposed RSO is qualified by experience as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒

[11]The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site http://www.nrc.gov/materials/miau/med-use-toolkit.html.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the required training and experience specified for certification, as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
	For an individual qualifying under 10 CFR 35.50(c)(2):	
	Copy of the licensee's license indicating that the individual is an AU, AMP, or ANP identified on the licensee's license and has experience with radiation safety aspects of similar types of use of byproduct material for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. **AND**	❒
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the requirements in 10 CFR 35.50(c)(2), as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
Item 7: Authorized Users for medical uses:	*For an individual previously identified as an AU on an NRC or Agreement State license or permit:*	
Name(s), (including license number authorizing practice of medicine, podiatry, or dentistry if not provided previously or in attachment); Requested uses for each individual	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the physician, dentist, or podiatrist was specifically named as an AU for the uses requested.	❒
	For an AU requesting authorization for an additional medical use:	
	Description of the additional training and experience to demonstrate the AU is also qualified for the new medical uses requested (e.g., training and experience needed to meet the requirements in 10 CFR 35.290 (b), 35.396, 35.390(b)(1)(ii)(G), or 35.690(c)). **AND**	❒
	A preceptor attestation, if required (e.g., attestation is required to meet the requirements in 10 CFR 35.396, 35.390(b)(1)(ii)(G), or 35.690(c)).	
A. Rashid Qureshi, M.D.	*For an individual qualifying under 10 CFR 35.57(b)(3):*	
	Documentation that the physician, podiatrist, or dentist: • used only accelerator-produced radioactive materials, or discrete sources of Ra-226, or both, for medical uses before or during the effective period of NRC's waiver of August 31, 2005; and • used these materials for the same medical uses requested.	☒
	For an individual qualifying under 10 CFR Part 35, Subparts D, E, F, G, and/or H, who is board-certified:	
	Copy of the certification(s) by a specialty board(s) whose certification process has been recognized[12] by the NRC under 10 CFR Part 35, Subpart D, E, F, G, or H, as applicable to the use requested. **AND**	❒

[12]The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site http://www.nrc.gov/materials/miau/med-use-toolkit.html.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual with a board certification recognized under 10 CFR 35.390, a description of the supervised work experience administering dosages of radioactive drugs required in 10 CFR 35.390(b)(1)(ii)(G) demonstrating that the proposed AU is qualified for the types of administrations for which authorization is sought; **AND**	❒
	For an individual with a board certification recognized under 10 CFR 35.390 for medical uses described in 10 CFR 35.200, a description of the supervised work experience eluting generator systems required in 10 CFR 35.290(c)(1)(ii)(G) demonstrating the proposed AU is also qualified for imaging and localization medical uses; **AND**	❒
	For an individual with a board certification recognized under 10 CFR 35.490 or 35.690 seeking authorization under 10 CFR 35.396(d), a description of the classroom and laboratory training and supervised work experience required to demonstrate qualifications for administering parenteral administrations of unsealed byproduct material requiring a written directive; **AND**	❒
	For an individual seeking authorization under 10 CFR Part 35, Subpart H, description of the training specified in 10 CFR 35.690(c) demonstrating that the proposed AU is qualified for the type(s) of use for which authorization is sought; **AND**	❒
	Written attestation, signed by a preceptor physician AU, that the training and experience specified for certification, as well as the clinical casework, or training and experience required by 10 CFR 35.396(d), or training for 10 CFR 35.600 types of use, if appropriate, have been satisfactorily completed and that a level of competency sufficient to function independently as an AU for the medical uses authorized has been achieved; **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual qualifying under 10 CFR Part 35, Subparts D, E, F, G, and/or H, who is not board-certified:	
	A description of the training and experience identified in 10 CFR Part 35, Subparts D, E, F, G, and H, demonstrating that the proposed AU is qualified by training and experience for the use(s) requested. **AND**	❒
	For an individual seeking authorization under 10 CFR Part 35, Subpart H, description of the training specified in 10 CFR 35.690 (c) demonstrating that the proposed AU is qualified for the type(s) of use for which authorization is sought. **AND**	❒
	Written attestation, signed by a preceptor physician AU, that the above training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an AU for the medical uses authorized has been achieved. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
Item 7: Authorized Nuclear Pharmacists Name(s) and license to practice pharmacy: N/A	*For an individual previously identified as an ANP on an NRC or Agreement State license or permit:*	
	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the individual was specifically named ANP.	❒
	For an individual qualifying under 10 CFR 35.57(a)(3):	
	Documentation that the nuclear pharmacist: • used only accelerator-produced radioactive materials or discrete sources of Ra-226, or both, in the practice of nuclear pharmacy before or during the effective period of NRC's waiver of August 31, 2005; and • used these materials for the same uses requested.	❒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual qualifying under 10 CFR 35.55(a):	
	Copy of the certification(s) of the specialty board whose certification process has been recognized[13] under 10 CFR 35.55(a). **AND**	❒
	Written attestation, signed by a preceptor ANP, that training and experience required for certification have been satisfactorily completed and that a level of competency sufficient to function independently as an ANP has been achieved. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
	For an individual qualifying under 10 CFR 35.55(b):	
	Description of the training and experience specified in 10 CFR 35.55(b) demonstrating that the proposed ANP is qualified by training and experience. **AND**	❒
	Written attestation, signed by a preceptor ANP, that the above training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an ANP has been achieved. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
Item 7: Authorized Medical Physicists Name(s): N/A	*For an individual previously identified as an AMP on an NRC or Agreement State license or permit:*	
	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the individual was specifically named an AMP for the uses requested.	❒

[13]The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site http://www.nrc.gov/materials/miau/med-use-toolkit.html.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual qualifying under 10 CFR 35.57(a)(3):	
	Documentation that the medical physicist: • used only accelerator-produced radioactive material, discrete sources of Ra-226, or both, for medical uses before or during the effective period of NRC's waiver of August 31, 2005; and • used these materials for the same medical uses requested.	❒
	For an individual qualifying under 10 CFR 35.51(a):	
	Copy of the certification(s) of the specialty board(s) whose certification process has been recognized[14] under 10 CFR 35.51(a). **AND**	❒
	Description of the training and experience specified in 10 CFR 35.51(c) demonstrating that the proposed AMP is qualified by training in the types of use for which he or she is requesting AMP status, including hands-on device operation, safety procedures, clinical use, and operation of a treatment planning system. **AND**	❒
	Written attestation, signed by a preceptor AMP, that the required training and experience required for certification, as well as the training and experience specified in 10 CFR 35.51(c) have been satisfactorily completed, and that a level of competency sufficient to function independently as an AMP has been achieved. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
	For an individual qualifying under 10 CFR 35.51(b):	
	Description of the training and experience demonstrating that the proposed AMP is qualified by training and experience identified in 10 CFR 35.51(b)(1) for the uses requested. **AND**	❒

[14]The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site http://www.nrc.gov/materials/miau/med-use-toolkit.html.

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	Description of the training and experience specified in 10 CFR 35.51(c) demonstrating that the proposed AMP is qualified by training in the types of use for which he or she is requesting AMP status, including hands-on device operation, safety procedures, clinical use, and operation of a treatment planning system. **AND**	❒
	Written attestation, signed by a preceptor AMP, that the required training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an AMP has been achieved. **AND**	❒
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	❒
Item 7: Authorized User for nonmedical uses	***Note:*** For purposes of this section of the table, the term "authorized user" is used to mean individuals authorized for the nonmedical uses described. See Sections 8.11 and 8.12.	
	For an individual previously authorized for nonmedical use on an NRC or Agreement State license or permit:	
Name(s): Requested types, quantities, and nonmedical uses for each individual	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the individual was specifically named an AU for the types, quantities, and uses requested.	❒
	For individuals qualifying under 10 CFR 30.33(a)(3):	
	Documentation of the individual's training and experience demonstrating that the individual is qualified to use the types and quantities of licensed materials for the requested uses.	❒
Item 9: Facility Diagram	A diagram is enclosed that describes the facilities and identifies activities conducted in all contiguous areas surrounding the area(s) of use. The following information is included:	☒
	• Guidance in Section 5.2 was reviewed and security-related sensitive information provided is marked accordingly. • Drawings should be to scale, indicating the scale used.	☒ ❒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	• Location, room numbers, and principal use of each room or area where byproduct material is prepared, used or stored, location of direct transfer delivery tubes from a PET radionuclide/radioactive drug production facility or production area of PET radioactive drugs under 10 CFR 30.32(j), and areas where higher energy gamma- emitting radionuclides (e.g., PET radionuclides) are used;	☒
	• Location, room numbers, and principal use of each adjacent room (e.g., office, file, toilet, closet, hallway), including areas above, beside, and below therapy treatment rooms, indicating whether the room is a restricted or unrestricted area as defined in 10 CFR 20.1003; and	☒
	• Provide shielding calculations and include information about the type, thickness, and density of any necessary shielding to enable independent verification of shielding calculations, including a description of any portable shields used (e.g., shielding of proposed patient rooms used for implant therapy, including the dimensions of any portable shield, if one is used; source storage safe).	☐
	In addition to the above, for teletherapy and GSR facilities, applicants should provide the directions of primary beam usage for teletherapy units and, in the case of an isocentric unit, the plane of beam rotation.	☐
Item 9: Radiation Monitoring Instruments	A statement that: "Radiation monitoring instruments will be calibrated by a person qualified to perform survey meter calibrations." **AND/OR**	☒
	A statement that: "We have developed and will implement and maintain written survey meter calibration procedures in accordance with the requirements in 10 CFR 20.1501 and that meet the requirements of 10 CFR 35.61." **AND**	☐
	A description of the instrumentation (e.g., gamma counter, solid state detector, portable or stationary count rate meter, portable or stationary dose rate or exposure rate meter, single or multichannel analyzer, liquid scintillation counter, proportional counter) that will be used to perform required surveys. **AND**	☒
	A statement that: "We reserve the right to upgrade our survey instruments as necessary as long as they are adequate to measure the type and level of radiation for which they are used."	☒
Item 9: Dose Calibrator and Other Dosage Measuring Equipment	A statement that: "Equipment used to measure dosages will be calibrated in accordance with nationally recognized standards or the manufacturer's instructions."	☒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
	When administering dosages of alpha-emitting unsealed byproduct material in other than unit dosages made by a manufacturer or preparer licensed under 10 CFR 32.72 or 10 CFR 30.32(j), • A statement that: "Dosages will be determined by relying on the provider's dose label for measurement of the radioactivity and a combination of volumetric measurement and mathematical calculation." **OR**	❒
	• We are providing a description of the dosage measurement equipment, the nationally recognized calibration standard (or manufacturer's calibration instructions), and dosage measurement procedures.	❒
Item 9: Therapy Unit - Calibration and Use N/A	We are providing the procedures required by 10 CFR 35.642, 10 CFR 35.643, and 10 CFR 35.645, if applicable to the license application.	❒
Item 9: Other Equipment and Facilities N/A	Guidance in Section 5.2 was reviewed and security-related information provided is marked accordingly.	❒
	Attached is a description, identified as Attachment 9.4, of additional facilities and equipment.	❒
	For manual brachytherapy facilities, we are providing a description of the emergency response equipment.	❒
	For PET radionuclide use, PET radioactive drug production, and radiopharmaceutical therapy programs, we are providing a description of the additional facilities and equipment for these uses.	❒
	For teletherapy, GSR, and remote afterloader facilities, we are providing a description of the following:	
	• Warning systems and restricted area controls (e.g., locks, signs, warning lights and alarms, interlock systems) for each therapy treatment room;	❒
	• Area radiation monitoring equipment;	❒
	• Viewing and intercom systems (except for LDR units);	❒
	• Steps that will be taken to ensure that no two units can be operated simultaneously, if other radiation-producing equipment (e.g., linear accelerator, X-ray machine) is in the treatment room;	❒
	• Methods to ensure that whenever the device is not in use or is unattended, the console keys will be inaccessible to unauthorized persons; and	❒
	• Emergency response equipment.	❒

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
Item 10: Safety Procedures and Instructions N/A	Attached are procedures required by 10 CFR 35.610.	❒
	Guidance in Section 5.2 was reviewed and security-related sensitive information provided is marked accordingly.	❒
Item 10: Occupational Dose	A statement that: "Either we will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in 1 year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the requirements listed under 'Criteria' in NUREG-1556, Vol. 9, Rev. 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licenses.' " **OR**	☒
	A description of an alternative method for demonstrating compliance with the referenced regulations.	❒
Item 10: Area Surveys	A statement that: "We have developed and will implement and maintain written procedures for area surveys in accordance with 10 CFR 20.1101 that meet the requirements of 10 CFR 20.1501 and 10 CFR 35.70."	☒
Item 10: Safe Use of Unsealed Licensed Material	A statement that: "We have developed and will implement and maintain procedures for safe use of unsealed byproduct material that meet the requirements of 10 CFR 20.1101 and 10 CFR 20.1301."	☒
Item 10: Spill/Contamination Procedures	A statement that: "We have developed and will implement and maintain written procedures for safe response to spills of licensed material in accordance with 10 CFR 20.1101."	☒
Item 10: Installation, Maintenance, Adjustment, Repair, and Inspection of Therapy Devices Containing Sealed Sources N/A	Name of the proposed employee and types of activities requested: **AND**	❒
	Description of the training and experience demonstrating that the proposed employee is qualified by training and experience for the use requested. **AND**	❒
	Copy of the manufacturer's training certification and an outline of the training in procedures to be followed.	❒
Item 10: Minimization of Contamination	A response is not required under the following condition: the NRC will consider that the above criteria have been met if the information provided in applicant's responses satisfy the criteria in Sections 8.15, 8.16, 8.21, 8.25, 8.27, and 8.29, on the topics: facilities and equipment, facility diagram, Radiation Protection Program, safety program, and waste management.	N/A

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Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal

(Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)

Item Number and Title	Suggested Response	Check box to indicate material included in application
Item 11: Waste Management	A statement that: "We have developed and will implement and maintain written waste disposal procedures for licensed material in accordance with 10 CFR 20.1101, that also meet the requirements of the applicable section of 10 CFR Part 20, Subpart K, and of 10 CFR 35.92."	☒
	Attached is a description of the radioactive waste incinerator facility and related portions of the Radiation Safety Program (10 CFR 20.2004).	❒
	Attached is a request to receive potentially contaminated radiation transport shields from consortium members receiving PET radioactive drugs noncommercially transferred under 10 CFR 30.32(j) authorization.	❒

Attachment Item 7

AUTHORIZED USER FOR MEDICAL USE

AUTHORIZED USER	AUTHORIZATION
A. A. Rashid Qureshi, M.D.	A. For byproduct material permitted in 10 CFR 35.200, limited to NARM.

Attached is documentation of training and that Dr. Qureshi used NARM material for medical uses before or during the effective period of NRC's waiver of August 31, 2005, and used these materials for the same medical uses requested.

A.Rashid Qureshi, M.D., is licensed to practice Medicine is the State of Missouri.

Miss i Radiation Control Program

FINALIZED Registration of Radioactive Materials

P.O. Box 570 1617 Southridge, Jefferson City MO 65102 Phone: 573-751-6083 Fax: 573-751-6158

DHSS Registration # 4560	Facility CARDIAC DIAGNOSTIC CENTER	PHONE: (314) 843-3110
FAX: (314) 843-0627	Address 10004 KENNERLY RD STE 283B ST LOUIS MO 63128	
County ST LOUIS	Alternative Address:	
Parent Facility:	Physicist: Tom Dickinson, Associates in Medical Physics	
Primary Facility Contact Person: Tim Yarber, RT(R-N)	Rad Safety Officer: Tim Yarber, RT(R-N), RSO (314)525-1917	
Radioactive Materials Authorized Users: A Rashid Qureshi, MD		
Current RAM Registration Date: 01/23/2006	MO DHSS Authorization Approval by John W Langston, MRCP	NOTE: This form does NOT include NRC regulated RAM
Registration Expires: 01/23/2008	RAMcomment:	

NRC LICENSE: (# NA) exp date: NA PHYSICIST: Tom Dickinson, Associates in Medical Physics, 1317 Kings Trail Lane, Fenton,MO 63026, phone(636) 225-1474, fax(636)225-7966

Isotope Symbol/Name		Max Qty	Chemical/Physical Form	RAM Usage	Usual Dose
Co 57	Cobalt 57	40 mCi total	2 sealed sources	Calib: vial & flood sources	NA
Tl 201	Thallium 201	50 mCi	liquid, thallous chloride	Diag/Imaging	unkn

Missouri Medical Radiation Control Program

Registration of Medical Radioactive Material

P.O. Box 570 912 Wildwood Dr, Jefferson City MO 65102 Phone: 573-751-6083 Fax: 573-751-6158

DHSS Registration # 4560	Facility CARDIAC DIAGNOSTIC CENTER	PHONE: (314) 843-3110
FAX: (314) 843-0627	Address: 10004 KENNERLY RD STE 283B	
County: ST LOUIS	ST LOUIS MO 63128	
Parent Facility:		
Nuclear Med Dept Contact Person: Tim Yarber, RT(R-N)	Rad Safety Officer: Tim Yarber, RT(R-N), RSO (314)525-1917	
Radioactive Materials Authorized Users: A Rashid Qureshi, MD		
Current RAM Registration Date: 1/23/04	MO DHSS Authorization Approval by	
Registration Expires: 1/23/06	Nuke Med Dept Comments:	John W Langston, MRCP

NOTE: The listing of NRC regulated material(s) on this Missouri RAM Regiatration IS NOT AN AUTHORIZATION FOR USE OR POSSESSION of these NRC materials, but is for MRCP informational purposes only. -------- NRC lic (# NA) exp date: NA ------- Physicist: Tom Dickinson, Associates in Medical Physics, 1317 Kings Trail Lane, Fenton,MO 63026, phone(636) 225-1474, fax(636)225-7966 -----

Isotope Symbol/Name	Max Qty	Chemical/Physical Form	RAM Usage	Usual Dose
Co 57 Cobalt 57	40 mCi total	2 sealed sources	Calib: vial & flood sources	NA
Cs 137 Cesium 137	2 uCi total	NRC regulated- 2 sealed sources	Calib/Ref sources- Exempt	NRC material
Tl 201 Thallium 201	50 mCi	liquid, thallous chloride	Diag/Imaging	

Signature of Facility Representative | Title | Date Signed

Friday, January 23, 2004

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NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

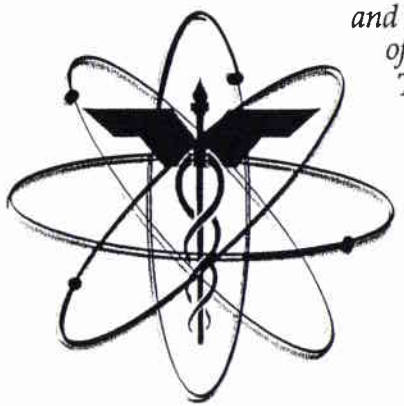
This document is to attest that

Abdul Rashid Qureshi, MD.

has successfully completed the didactic program

RADIOPHARMACEUTICALS AND CHEMISTRY

and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination. This program provides the following levels of accomplishment:



- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH) In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b, ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on Education (ACE), American Association for Collegiate Registrars

Charles N. Rose	15 July 2001	199475
Certifying Official	Date Completed	Certification

Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class IV-Compl&Comp 1/00

21

NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

This document is to attest that

Rashid Qureshi, MD.

has successfully completed the didactic program

MEDICAL RADIATION INSTRUMENTATION

and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination. This program provides the following levels of accomplishment:

- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH) In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b, ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on Education (ACE), American Association for Collegiate Registrars

Charles H. Rose
Certifying Official

17 June 2001
Date Completed

199407
Certification

Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class II-Compl&Comp 1/00

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NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

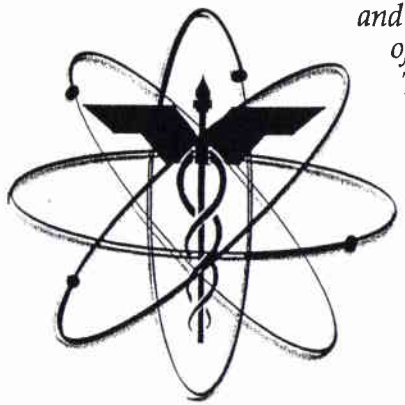
This document is to attest that

Rashid Qureshi, MD.

has successfully completed the didactic program

PRINCIPLES OF RADIATION PHYSICS

and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination. This program provides the following levels of accomplishment:



- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH) In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b, ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on Education (ACE), American Association for Collegiate Registrars

Charles N. Rose	13 June 2001	199346
Certifying Official	Date Completed	Certification

Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class I-Compl&Comp 1/00

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NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

This document is to attest that

Abdul Rashid Qureshi, MD.

has successfully completed the didactic program

MEDICAL RADIATION PROTECTION

and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination. This program provides the following levels of accomplishment:

5.0 Continuing Education Units (CEU)
50 Didactic Instructional Hours (DIH)
In compliance with 10CFR35/AEA 73-689
50 Board Accepted Hours NUSPEX, NMTCB III b, ABMRSO, CBNC, MRLB
3.0 Semester Hours American Council on Education (ACE), American Association for Collegiate Registrars

Charles H. Rose
Certifying Official

11 July 2001
Date Completed

199437
Certification

Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class III-Compl&Comp 1/00

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Attachment Item 7

RADIATION SAFETY OFFICER

Documentation and training that Timothy E. Yarber, R.T.(R)(N), was the RSO for the medical use of NARM materials included in the definition of byproduct material as a result of the EPAct and that RSO duties for the medical uses of NARM materials were before and during the effective period of NRC's waiver of August 31, 2005.

Attachment Item 7

Delegation of Authority for Radiation Safety Officer

Timothy E. Yarber, R.T.(R)(N), is appointed as Radiation Safety Officer (RSO) and is responsible for ensuring the safe use of radiation. As RSO I am responsible for managing the radiation protection program; identifying radiation protection problems; initiating, recommending, or providing corrective actions; verifying implementation of corrective actions; stopping unsafe activities; and ensuring compliance with regulations. I will exercise the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations where justified by radiation safety. In addition, you are free to raise issues with the Nuclear Regulatory Commission or other regulatory agency at any time.

I accept the above responsibilities,

Signature

Timothy E. Yarber, R.T.(R)(N)

9/1/9

Date

Missouri Medical Radiation Control Program

Registration of Medical Radioactive Material

P.O. Box 570 912 Wildwood Dr, Jefferson City MO 65102 Phone: 573-751-6083 Fax: 573-751-6158

DHSS Registration # 4560	Facility CARDIAC DIAGNOSTIC CENTER	PHONE: (314) 843-3110
FAX: (314) 843-0627	Address: 10004 KENNERLY RD STE 283B	
County: ST LOUIS	ST LOUIS MO 63128	
Parent Facility:		
Nuclear Med Dept Contact Person: Tim Yarber, RT(R-N)	Rad Safety Officer: Tim Yarber, RT(R-N), RSO (314)525-1917	
Radioactive Materials Authorized Users: A Rashid Qureshi, MD		
Current RAM Registration Date: 1/23/04	MO DHSS Authorization Approval by	
Registration Expires: 1/23/06	Nuke Med Dept Comments:	John W Langston, MRCP

NOTE: The listing of NRC regulated material(s) on this Missouri RAM Registration IS NOT AN AUTHORIZATION FOR USE OR POSSESSION of these NRC materials, but is for MRCP informational purposes only. -------- NRC lic (# NA) exp date: NA ------- Physicist Tom Dickinson, Associates in Medical Physics, 1317 Kings Trail Lane, Fenton,MO 63026, phone(636) 225-1474, fax(636)225-7966 ------

Isotope Symbol/Name	Max Qty	Chemical/Physical Form	RAM Usage	Usual Dose
Co 57 Cobalt 57	40 mCi total	2 sealed sources	Calib: vial & flood sources	NA
Cs 137 Cesium 137	2 uCi total	NRC regulated- 2 sealed sources	Calib/Ref sources- Exempt	NRC material
Tl 201 Thallium 201	50 mCi	liquid, thallous chloride	Diag/Imaging	

Signature of Facility Representative | Title | Date Signed

Friday, January 23, 2004

Miss: i Radiation Control Program

FINALIZED Registration of Radioactive Materials

P.O. Box 570 1617 Southridge, Jefferson City MO 65102 Phone: 573-751-6083 Fax: 573-751-6158

PHONE: (314) 843-3110

DHSS Registration # 4560 Facility CARDIAC DIAGNOSTIC CENTER ST LOUIS MO 63128

FAX: (314) 843-0627 Address 10004 KENNERLY RD STE 283B

County ST LOUIS Alternative Address:

Parent Facility: Physicist: Tom Dickinson, Associates in Medical Physics

Primary Facility Contact Person: Tim Yarber, RT(R-N) Rad Safety Officer: Tim Yarber, RT(R-N), RSO (314)525-1917

Radioactive Materials Authorized Users A Rashid Qureshi, MD

Current RAM Registration Date: 01/23/2006

Registration Expires: 01/23/2008

RAMcomment:

MO DHSS Authorization Approval by John W Langston, MRCP

NOTE: This form does NOT include NRC regulated RAM

NRC LICENSE: (# NA) exp date: NA PHYSICIST: Tom Dickinson, Associates in Medical Physics, 1317 Kings Trail Lane, Fenton,MO 63026, phone(636) 225-1474, fax(636)225-7966

Isotope Symbol/Name		Max Qty	Chemical/Physical Form	RAM Usage	Usual Dose
Co 57	Cobalt 57	40 mCi total	2 sealed sources	Calib: vial & flood sources	NA
Tl 201	Thallium 201	50 mCi	liquid, thallous chloride	Diag/Imaging	unkn

NRC FORM 313A (RSO) (2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.50]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008

Name of Proposed Radiation Safety Officer

TIMOTHY E. YARBER

Requested Authorization(s) *The license authorizes the following medical uses (check all that apply)*:

☐ 35.100 ☒ 35.200 ☐ 35.300 ☐ 35.400 ☐ 35.500 ☐ 35.600 (remote afterloader)

☐ 35.600 (teletherapy) ☐ 35.600 (gamma stereotactic radiosurgery) ☐ 35.1000 (_____)

PART I – TRAINING AND EXPERIENCE

(Select one of the four methods below)

*Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the uses checked above.

☐ 1. **Board Certification**

a. Provide a copy of the board certification.

b. Use Table 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.

c. Skip to and complete Part II Preceptor Attestation.

OR

☐ 2. **Current Radiation Safety Officer Seeking Authorization to Be Recognized as a Radiation Safety Officer for the Additional Medical Uses Checked Above**

a. Use the table in section 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for the additional types of medical use for which recognition as RSO is sought.

b. Skip to and complete Part II Preceptor Attestation.

OR

☒ 3. **Structured Educational Program for Proposed Radiation Safety Officer**

a. Classroom and Laboratory Training

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation	NAVAL SCHOOL OF HEALTH SCIENCES, BETHESDA, MD. 20814	156	4/87
Radiation protection	NAVAL SCHOOL OF HEALTH SCIENCES, BETHESDA, MD. 20814	39	1/87 - 4/87
Mathematics pertaining to the use and measurement of radioactivity	NAVAL SCHOOL OF HEALTH SCIENCES, BETHESDA MD. 20814	76	1/87 - 4/87
Radiation biology	NAVAL SCHOOL OF HEALTH SCIENCES, BETHESDA, MD. 20814	33	1/87 - 4/87
Radiation dosimetry	NAVAL SCHOOL OF HEALTH SCIENCES, BETHESDA, MD. 20814	35	1/87 - 4/87
	Total Hours of Training:	560 – SEE ATTACHED LIST	

NRC FORM 313A (RSO)
(2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

b. Supervised Radiation Safety Experience

(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)

Description of Experience	Location of Training/ License or Permit Number of Facility	Dates of Training*
Shipping, receiving, and performing related radiation surveys	ST. ANTHONY'S MEDICAL CENTER, 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER:	JAN/04 - PRESENT MAR 09
Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST LOUIS, MO. 63128 LICENSE NUMBER:	JAN/04 - PRESENT MAR 09
Securing and controlling byproduct material	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER:	JAN/04 - PRESENT MAR 09
Using administrative controls to avoid mistakes in administration of byproduct material	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER:	JAN/04 - PRESENT MAR 09
Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER:	JAN 04 - PRESENT MAR 09
Using emergency procedures to control byproduct material	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO 63128 LICENSE NUMBER:	JAN 04 - PRESENT MAR 09
Disposing of byproduct material	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER	JAN 04 - PRESENT MAR 09
Licensed Material Used (e.g., 35.100, 35.200, etc.)+ 35.200	ST. ANTHONY'S MEDICAL CENTER 10010 KENNERLY RD. ST. LOUIS, MO. 63128 LICENSE NUMBER:	JAN 04 - PRESENT MAR 09

\+ Choose all applicable sections of 10 CFR Part 35 to describe radioisotopes and quantities used: 35.100, 35.200, 35.300, 35.400, 35.500, 35.600 remote afterloader units, 35.600 teletherapy units, 35.600 gamma stereotactic radiosurgery units, emerging technologies (provide list of devices).

NRC FORM 313A (RSO)
(2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

b. Supervised Radiation Safety Experience (continued)

(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)

Supervising Individual	License/Permit Number listing supervising individual as a Radiation Safety Officer
ANTOINETTE MIGNERONE CNMT, NMTCB	NRC 24-01041-04

This license authorizes the following medical uses:

- [x] 35.100
- [x] 35.200
- [x] 35.300
- [x] 35.400
- [x] 35.500
- [ ] 35.600 (remote afterloader)
- [ ] 35.600 (teletherapy)
- [ ] 35.600 (gamma stereotactic radiosurgery)
- [ ] 35.1000 ( )

c. Describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.

Description of Training	Training Provided By	Dates of Training*
Radiation safety, regulatory issues, and emergency procedures for 35.100, 35.200, and 35.500 uses	ANTOINETTE MIGNERONE CNMT, NMTCB	6/2002 – 3/2009
Radiation safety, regulatory issues, and emergency procedures for 35.300 uses		
Radiation safety, regulatory issues, and emergency procedures for 35.400 uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - teletherapy uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - remote afterloader uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - gamma stereotactic radiosurgery uses		
Radiation safety, regulatory issues, and emergency procedures for 35.1000, specify use(s):		

NRC FORM 313A (RSO)
(2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

c. Training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license (continued)

Supervising Individual *If training was provided by supervising RSO, AU, AMP, or ANP. (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)*	License/Permit Number listing supervising individual
DAVID J. KEYS Ph. D.	NRC 24-01041-04 Supervised work experience 6/07 ~~through~~ 6/09

License/Permit lists supervising individual as:

- [x] Radiation Safety Officer
- [ ] Authorized User
- [ ] Authorized Nuclear Pharmacist
- [ ] Authorized Medical Physicist

Authorized as RSO, AU, ANP, or AMP for the following medical uses:

- [x] 35.100
- [x] 35.200
- [x] 35.300
- [x] 35.400
- [x] 35.500
- [x] 35.600 (remote afterloader)
- [ ] 35.600 (teletherapy)
- [ ] 35.600 (gamma stereotactic radiosurgery)
- [ ] 35.1000 (____ _____)

d. Skip to and complete Part II Preceptor Attestation.

OR

[ ] **4. Authorized User, Authorized Medical Physicist, or Authorized Nuclear Pharmacist identified on the licensee's license**

a. Provide license number.

b. Use the table in section 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.

c. Skip to and complete Part II Preceptor Attestation.

PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each.

First Section

Check one of the following:

[ ] **1. Board Certification**

[ ] I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Radiation Safety Officer

10 CFR 35.50(a)(1)(i) and (a)(1)(ii); or 35.50 (a)(2)(i) and (a)(2)(ii); or 35.50(c)(1).

OR

[x] **2. Structured Educational Program for Proposed Radiation Safety Officers**

[x] I attest that TIMOTHY E. YARBER has satisfactorily completed a structural educational
Name of Proposed Radiation Safety Officer

program consisting of both 200 hours of classroom and laboratory training and one year of full-time radiation safety experience as required by 10 CFR 35.50(b)(1). based upon review of documentation provided from the OR Naval School of Health Sciences, Bethesda, MD 20814.

NRC FORM 313A (RSO)
(2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Preceptor Attestation (continued)

First Section (continued)
Check one of the following:

☐ 3. **Additional Authorization as Radiation Safety Officer**

☐ I attest that _____ is an
Name of Proposed Radiation Safety Officer

☐ Authorized User ☐ Authorized Nuclear Pharmacist

☐ Authorized Medical Physicist

identified on the Licensees license and has experience with the radiation safety aspects of similar type of use of byproduct material for which the individual has Radiation Safety Officer responsibilities

---

AND

Second Section
Complete for all ***(check all that apply):***

☒ I attest that TIMOTHY E. YARBER has training in the radiation safety, regulatory issues, and
Name of ProposedRadiation Safety Officer

emergency procedures for the following types of use:

☐ 35.100

☒ 35.200

☐ 35.300 oral administration of less than or equal to 33 millicuries of sodium iodide I-131, for which a written directive is required

☐ 35.300 oral administration of greater than 33 millicuries of sodium iodide I-131

☐ 35.300 parenteral administration of any beta-emitter, or a photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required

☐ 35.300 parenteral administration of any other radionuclide for which a written directive is required

☐ 35.400

☐ 35.500

☐ 35.600 remote afterloader units

☐ 35.600 teletherapy units

☐ 35.600 gamma stereotactic radiosurgery units

☐ 35.1000 emerging technologies, including:

_____

_____

_____

NRC FORM 313A (RSO)
(2-2007)

U.S. NUCLEAR REGULATORY COMMISSION

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

AND

Third Section
Complete for ALL

☒ I attest that TIMOTHY E. YARBER has achieved a level of radiation safety knowledge
Name of Proposed Radiation Safety Officer

sufficient to function independently as a Radiation Safety Officer for a medical use licensee.

Fourth Section
Complete the following for Preceptor Attestation and signature

I am the Radiation Safety Officer for ST. ANTHONYS MEDICAL CENTER 10010 KENNERY RD. ST. LOUIS MO 63128
Name of Facility

License/Permit Number: NRC. 24-01041-04

Name of Preceptor	Signature	Telephone Number	Date
DAVID J. KEYS Ph.D.	David J. Keys	314-525-4064	7/9/09

NAVAL HEALTH SCIENCES EDUCATION AND TRAINING COMMAND

Awards this

CERTIFICATE OF GRADUATION

to

SERGEANT TIMOTHY EARL YARBER

who has satisfactorily completed the prescribed course of instruction for

CLINICAL NUCLEAR MEDICINE TECHNICIAN SCHOOL
PHASE I

at

NAVAL SCHOOL OF HEALTH SCIENCES
BETHESDA, MARYLAND 20814-5033

28 APRIL 1987
Date

P. J. ELSASS, CAPT, NC, USN
Commanding Officer
NAVAL SCHOOL OF HEALTH SCIENCES
BETHESDA, MARYLAND 20814-5033

35

HSETC 1510/1 (11-83)

№ 8090

ADMINISTRATIVE REMARKS
NAVPERS 1070/613 (Rev. 1-76)
S/N 0106-LF-010-6990

ADMINISTRATIVE REMARKS

E-32

SEE BUPERSMAN 5030420

SHIP OR STATION
Naval School of Health Sciences, Bethesda, MD 20814

Completed Clinical Nuclear Medicine Technician Phase I Course (B-311-0016) CDP Code 3306 Graduated on 28 April 1987.

TRANSCRIPT OF GRADES — HOURS OF INSTRUCTION

	DIDACTIC	GRADE
Applied Technical Mathematics	76	92.51
Applied Nuclear Physics	41	89.62
Applied Technical Chemistry	39	94.32
Radiation Safety	39	87.30
Radiation Instrumentation	115	92.14
Radiopharmacy	41	91.27
Diagnostic Imaging	70	87.98
Radionuclide Dilution Procedures	44	92.35
Thyroid Procedures	33	89.64
Radioimmunoassay	29	92.08
Radiation Biology	33	84.42
Total Hours	560	

Clocks

Final Average: 90.65
Class Standing: 08 of 12
Issued Certificate of Special Instruction No. 8090

J. C. McDonough
J. C. MCDONOUGH
By direction

NAME (Last, First, Middle)	SSN	BRANCH AND CLASS
YARBER, TIMOTHY E.	345-64-7240	SGT/USAF

☆U.S. Government Printing Office: 1980—703-100/8531 2-1

13

1255 Northland Drive
St. Paul, MN 55120-1155
(651) 687-0048
www.arrt.org

R.T. - Registered Technologist
R.R.A. - Registered Radiologist Assistant
(R) - Radiography
(N) - Nuclear Medicine Technology
(T) - Radiation Therapy
(S) - Sonography
(MR) - Magnetic Resonance Imaging
(CV) - Cardiovascular - Interventional Radiography
(M) - Mammography
(CT) - Computed Tomography
(QM) - Quality Management
(BD) - Bone Densitometry
(VS) - Vascular Sonography
(CI) - Cardiac-Interventional Radiography
(VI) - Vascular-Interventional Radiography
(BS) - Breast Sonography

Card invalid if altered, disciplinary action may result.

THE AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS®
USE ORIGINAL CARD FOR VERIFICATION

I.D. Number
223717

Valid Thru End Of
FEB-2010

TIMOTHY E YARBER, R.T.(R)(N) (ARRT)
2287 DURHAM CT
MARYVILLE, IL 62062-5818

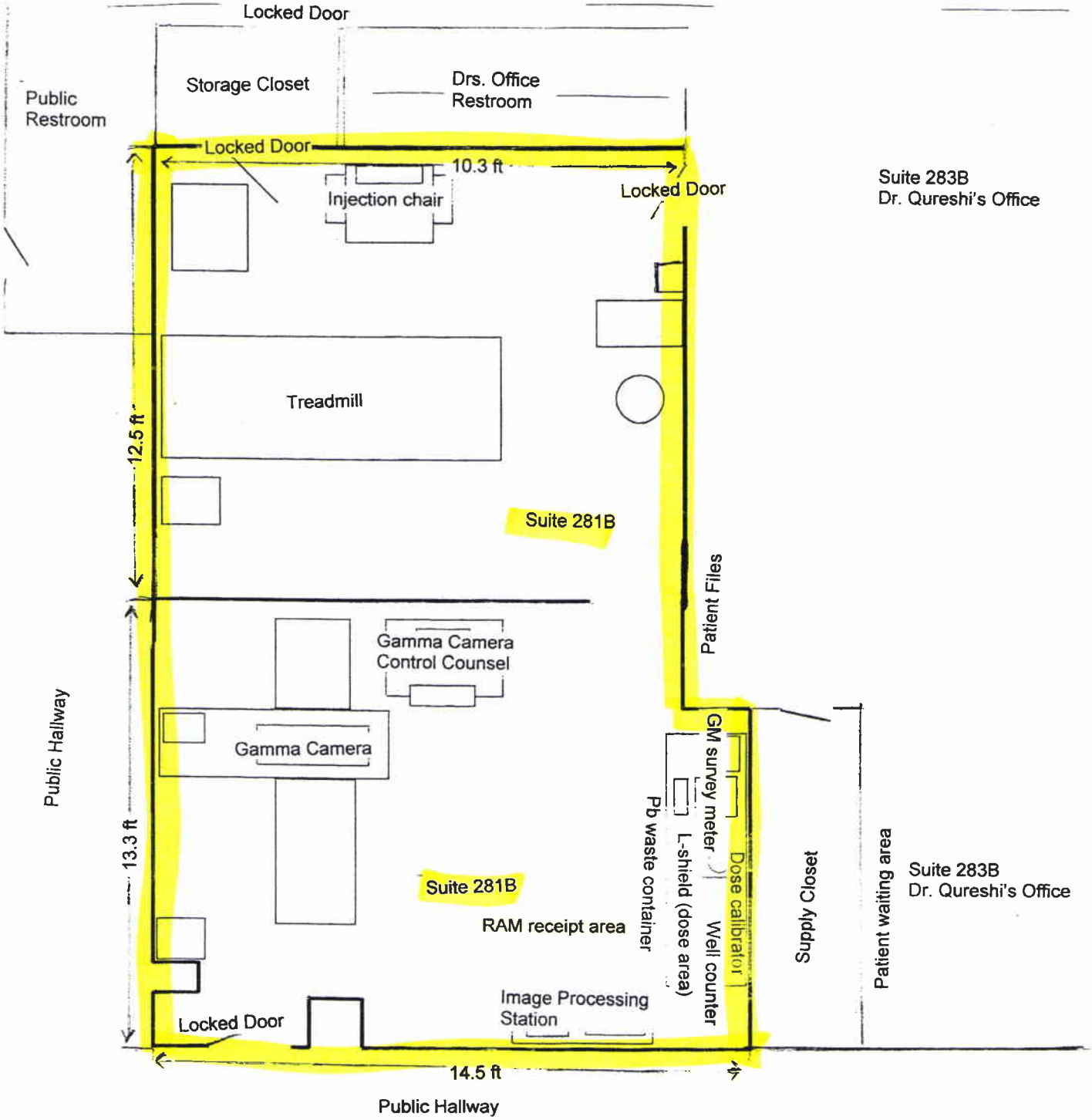
Status In CE Compliance

CE Biennium
02/01/2008
01/31/2010

Item 9 Facility Diagram

Security - Related Information - Withhold Under 10 CFR 2.390

Cardiac Diagnostic Center, LLC., 10004 Kennerly Rd., Suite 281-B, St. Louis, MO



All radioactive material is stored in shielded containers to keep radiation exposures within Part 20 regulations (20.1301) and ALARA.

Directly above the restricted area is Suite 391, occupied by a physician group.
Directly below the restricted area is Suite 183, occupied by a physician group.
Directly to the East of the restricted area is a public hallway and restroom.
Directly to the South of the restricted area is Dr. Qureshi's Office, Suite 283B.
Directly to the West of the restricted area is Dr. Qureshi's Office, Suite 283B.
Directly to the North of the restricted area is a public hallway.

S
E W
N

ST. ANTHONY'S
MEDICAL CENTER

October 17, 2005

Cardiac Diagnostic Center
10004 Kennerly Rd., STE 283B
St. Louis, MO 63128

Re: St. Anthony's Medical Center Release to the NRC

To Whom It May Concern:

This letter provides release by St. Anthony's Medical Center, to the Cardiac Diagnostic Center, for application of an NRC License for the use of Tc-99 in cardiac imaging studies at 10004 Kennerly Rd, STE 283B. St. Anthony's Medical Center stipulates however that the use of these materials be in accordance with all NRC Rules, State Rules and JCAHO guidelines.

Sincerely,

Michalene A. Maringer

Michalene Maringer, CHO
St. Anthony's Medical Center

Item 9: Facility Diagram and Description of Area of Use

Our office is in a professional medical building owned by St. Anthony's Medical Center. Attached is a letter from the CHO at St. Anthony's Medical Center giving us permission to use radioactive material. At the time the letter was issued, Suite 283B included what is now called Suite 283B and Suite 281B. Due to other medical governmental bodies we were required to have Nuclear Cardiology segregated from our main Suite of 283B, and St. Anthony's Medical Center has designated it as Suite 281B.

Radioactive material will be secured in Suite 281B. Shielding of licensed material will sufficient to keep radiation exposure in unrestricted areas below the limits stated in 10 CFR Part 20.1301(a).

Item 9. Radiation Monitoring Instruments

Radiation monitoring instruments will be calibrated by a person qualified to perform survey meter calibrations. We will possess a Ludlum 14C with pancake probe or equivalent, with a range of 0.1 to 2,000 mR/hr. To analyze wipe tests for removable contamination we will use a Capintec CRC-15W Well Counter or equivalent, that is able to detect 2,000 dpm of activity. We reserve the right to upgrade our survey instruments as necessary as long as they are adequate to measure the type and level of radiation for which they are used.

Item 9. Dose Calibrator and Other Dosage Measuring Equipment

Equipment used to measure dosages will be calibrated in accordance with nationally recognized standards or the manufacturer's instructions.

Item 10. Occupational Dose

Either we will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the requirements listed under "Criteria" in NUREG -1556, Vol. 9, Rev.2, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licensees."

Item 10. Area Surveys

We have developed and will implement and maintain written procedures for area surveys in accordance with 10 CFR 20.1101 that meet the requirements of 10 CFR 20.1501.

Item 10. Safe Use of Unsealed Licensed Material

We have developed and will implement and maintain procedures for safe use of unsealed byproduct material that meet the requirements of 10 CFR 20.1101 and 20.1301.

Item 10. Spill Procedures

We have developed and will implement and maintain written procedures for safe response to spills of licensed material in accordance with 10 CFR 20.1101.

Item 11. Waste Management

We have developed and will implement and maintain written waste disposal procedures for licensed material in accordance with 10 CFR 20.1101, that also meet the requirement of the applicable section of Subpart K to 10 CFR Part 20 and 10 CFR 35.92.

14.9 oz

CARDIAC DIAG[illegible] CENTER, L.L.C.
10004 KENNERLY RD.
SUITE 281B
ST. LOUIS, MO 63128

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