

**NRC FORM 313**  
(4-2008)  
10 CFR 30, 32, 33,  
34, 35, 36, 39, and 40

**U.S. NUCLEAR REGULATORY COMMISSION**

**APPROVED BY OMB: NO. 3150-0120**

**EXPIRES: 10/31/2008**

Estimated burden per response to comply with this mandatory collection request: 4.4 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@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.

## APPLICATION FOR MATERIALS 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.**

**APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
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)

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER **21-26632-01**
- C. RENEWAL OF LICENSE NUMBER \_\_\_\_\_

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

**Vrinda Narayana, Ph.D.**  
**Providence Cancer Center, Providence Hospital**  
**22301 Foster Winter Drive, I Floor**  
**Southfield, MI 48075**

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

**Vrinda Narayana**

TELEPHONE NUMBER

**(248) 849-8622**

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 \_\_\_\_\_ AMOUNT ENCLOSED \$ \_\_\_\_\_

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 CONTAINED 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

**Vrinda Narayana, Ph.D. RSO**

SIGNATURE



DATE

**01/21/2009**

### FOR NRC USE ONLY

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

RECEIVED JAN 30 2009



January 21, 2009

U.S. Nuclear Regulatory Commission, Region III  
Nuclear Materials Licensing  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

**Ref: Material License # # 21-26632-01,**

**Subject:** Request for license material amendment

To the person concerned,

Enclosed is our request to amend our material license # # 21-26632-01, issued to Providence Hospital, Providence Cancer Center, 22301 Foster Winter Drive, Southfield, MI 48075.

1. Paul Heckman, Ph.D. has been a part of the staff at Providence Hospital from March 2006. I request that he be **added** as an Authorized Medical Physicist on our license for use of Iridium -192 in MDS Nordion (formerly Isotopen-Technik) GammaMed 12i HDR remote afterloading brachytherapy unit. I have attached the NRC Form 313A(AMP) that documents his training and experience and is signed by me as an Authorized Medical Physicist.

Thank you,

Sincerely,

A handwritten signature in black ink that reads "Vrinda Narayana".

Vrinda Narayana, Ph.D

RSO

Providence Cancer Institute  
22301 Foster Winter Drive, I Floor  
Southfield, MI 48075  
248 849 8622

**AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE  
AND PRECEPTOR ATTESTATION  
[10 CFR 35.51]**

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

Name of Proposed Authorized Medical Physicist  
Paul Heckman, Ph.D.

- Requested Authorization(s) (check all that apply)**
- 35.400 Ophthalmic use of strontium-90
  - 35.600 Teletherapy unit(s)
  - 35.600 Remote afterloader unit(s)
  - 35.600 Gamma stereotactic radiosurgery unit(s)

**PART I -- TRAINING AND EXPERIENCE  
(Select one of the three 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. Go to the table in 3.c. and describe training provider and dates of training for each type of use for which authorization is sought.
- c. Skip to and complete Part II Preceptor Attestation.

**2. Current Authorized Medical Physicist Seeking Additional Authorization for use(s) checked above**

- a. Go to the table in section 3.c. to document training for new device.
- b. Skip to and complete Part II Preceptor Attestation

**3. Education, Training, and Experience for Proposed Authorized Medical Physicist**

- a. Education: Document master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university.

Degree	Major Field
Doctor of Philosophy	Physics
College or University	
Michigan State University	

- b. Supervised Full-Time Medical Physics Training and Work Experience in clinical radiation facilities that provide high-energy external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services.

Yes. Completed 1 year of full-time training in medical physics (for areas identified below) under the supervision of Vrinda Narayana, Ph.D. who meets the requirements for an Authorized Medical Physicist.

**AND**

Yes. Completed 1 year of full-time work experience in medical physics (for areas identified below) under the supervision of Vrinda Narayana, Ph.D. who meets the requirements for an Authorized Medical Physicist.

**AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**3. Education, Training, and Experience for Proposed Authorized Medical Physicist (continued)**

**b. Supervised Full-Time Medical Physics Training and Work Experience (continued)**

*If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.*

Description of Training/ Experience	Location of Training/License or Permit Number of Training Facility/Medical Devices Used+	Dates of Training*	Dates of Work Experience*
Medical Physics	Providence Hospital, Southfield, MI 21-26632-01 Gammamed 12I HDR Remate Afterloader	April 06- April 07	May 07 - Jan 09
Performing sealed source leak tests and inventories	Providence Hospital, Southfield, MI 21-26632-01 Gammamed 12I HDR Remate Afterloader	April 06- April 07	May 07 - Jan 09
Performing decay corrections	Providence Hospital, Southfield, MI 21-26632-01 Gammamed 12I HDR Remate Afterloader	April 06- April 07	May 07 - Jan 09
Performing full calibration and periodic spot checks of external beam treatment unit(s)			
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)			
Performing full calibration and periodic spot checks of remote afterloading unit(s)	Providence Hospital, Southfield, MI 21-26632-01 Gammamed 12I HDR Remate Afterloader	April 06- April 07	May 07 - Jan 09
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)	Providence Hospital, Southfield, MI 21-26632-01 Gammamed 12I HDR Remate Afterloader	April 06- April 07	May 07 - Jan 09

Supervising Individual\*\*

Vrinda Narayana, Ph.D.

License/Permit Number listing supervising individual as an authorized Medical Physicist

21-26632-01

for the following types of use:

- Remote afterloader unit(s)       Teletherapy unit(s)       Gamma stereotactic radiosurgery unit(s)

+ Training and work experience must be conducted in clinical radiation facilities that provide high-energy external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services.

\* 1 year of Full-time medical physics training and 1 year of full time work experience cannot be concurrent.

\*\* If the supervising medical physicist is not an authorized medical physicist, the licensee must submit evidence that the supervising medical physicist meets the training and experience requirements in 10 CFR 35.51 and 35.59 for the types of use for which the individual is seeking authorization.

**AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**3. Education, Training, and Experience for Proposed Authorized Medical Physicist (continued)**

c. Describe training provider and dates of training for each type of use for which authorization is sought.

Description of Training	Training Provider and Dates		
	Remote Afterloader	Teletherapy	Gamma Stereotactic Radiosurgery
Hands-on device operation	May 07 - Jan 09		
Safety procedures for the device use	May 07 - Jan 09		
Clinical use of the device	May 07 - Jan 09 Gynecological, Bronchial, Esophageal, interstitial and Breast treatments		
Treatment planning system operation	May 07 - Jan 09 Brachyvision		

Supervising Individual  
*If training is provided by Supervising Medical Physicist, (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)*  
Vrinda Narayana, Ph.D.

License/Permit Number listing supervising individual as an authorized Medical Physicist  
21-26632-01

for the following types of use:

Remote afterloader unit(s)       Teletherapy unit(s)       Gamma stereotactic radiosurgery unit(s)

If Applicable:

Authorization Sought	Device	Training Provided By	Dates of Training
35.400 Ophthalmic Use of strontium-90			

d. Skip to and complete Part II Preceptor Attestation.

**AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

**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 Authorized Medical Physicist  
10 CFR 35.51(a)(1) and (a)(2).

**OR**

**2. Education, Training, and Experience**

I attest that Paul Heckman, Ph.D. has satisfactorily completed the 1-year of full-time  
Name of Proposed Authorized Medical Physicist  
training in medical physics and an additional year of full-time work experience as required by 10 CFR 35.51(b)(1).

**AND**

**Second Section**

Complete the following:

I attest that Paul Heckman, Ph.D. has training for the types of use for which authorization  
Name of Proposed Authorized Medical Physicist  
is sought that include hands-on device operation, safety procedures, clinical use, and the operation of a treatment planning system.

**AND**

**Third Section**

Complete the following:

I attest that Paul Heckman, Ph.D. has achieved a level of competency sufficient to  
Name of Proposed Authorized Medical Physicist  
function independently as an Authorized Medical Physicist for the following:

- 35.400 Ophthalmic use of strontium-90       35.600 Teletherapy unit(s)
- 35.600 Remote afterloader unit(s)       35.600 Gamma stereotactic radiosurgery unit(s)


**AND**

**Fourth Section**

Complete the following for preceptor attestation and signature:

I meet the requirements in 10 CFR 35.51, or equivalent Agreement State requirements for Authorized Medical Physicist for the following:

- 35.400 Ophthalmic use of strontium-90       35.600 Teletherapy unit(s)
- 35.600 Remote afterloader unit(s)       35.600 Gamma stereotactic radiosurgery unit(s)

Name of Preceptor Vrinda Narayana, Ph.D.	Signature 	Telephone Number 248 849 8622	Date 21 Jan 09
License/Permit Number/Facility Name 21-26632-01/Providence Hospital, Providence Cancer Center			

Vrinda Narayana, Ph.D.  
Providence Cancer Institute  
22301 Foster Winter Drive, I floor  
Southfield, MI 48075

PRESORTED  
FIRST CLASS



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Materials Licensing Branch  
U.S. Nuclear Regulatory Commission,  
Region III  
2443 Warrenville Road  
Suite 210  
Lisle, IL 60532-4352

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