

**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, 1 floor**  
**Southfield, MI 48075**

**3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED**

**Providence Cancer Center, Providence Hospital**  
**22301 Foster Winter Drive, 1 floor**  
**Southfield, MI 48075**

**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.**

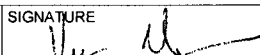
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND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

**04/05/2011**

**FOR NRC USE ONLY**

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

**RECEIVED APR 0 6 2011**



**PROVIDENCE**  
**Cancer Institute**

April 5, 2011

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, Control # 573999**

To the person concerned,

Providence Hospital has submitted a license renewal package to the NRC on Nov 22<sup>nd</sup> 2010. While our renewal request is being currently reviewed, we would like to amend our license with regard to the following items.

1. On Feb 11<sup>th</sup> 2011, the Gammamed iX unit was decommissioned from Rm 101 and the Gammamed Plus unit was installed in Rm 102. I have enclosed a copy of the last leak test for Ir-192 sealed source and radiation survey results of Rm101 as a type of closeout survey. I would like to request that Rm 101 be **deleted** from our license and the room released for unrestricted use.
2. We request that the Varian model GammaMed 12i unit be **removed** from our license. We no longer posses that unit.
3. We request that possession of Depleted Uranium be **removed** from our license. We do not have any on site.
4. Facilities and Equipment: The HDR afterloader is stored in its housing box in Rm 102 and securely locked when not in use. The afterloader shares the room with a linear accelerator. An A-B selector switch that prevents dual operation of the radiation devices has been installed. As a result of the installation of the A-B switch, the linac key and the afterloader key will no longer be locked together. When not in use, the afterloader key will be stored in a locked cabinet.
5. We request a possession limit of 2 sources not to exceed 21Ci total. Treatment activity is limited to 10Ci and the other source will be in storage for source exchange.
6. All other HDR administrative and operational program elements remain unchanged.

Thank you,

Sincerely,

A handwritten signature in black ink, appearing to read 'Vrinda Narayana'.

Vrinda Narayana, Ph.D  
RSO  
22301 Foster Winter Drive, I Floor  
Southfield, MI 48075  
248 849 8622



**PROVIDENCE**  
**Cancer Institute**

**Material License # 21-26632-01**

**Attachment**

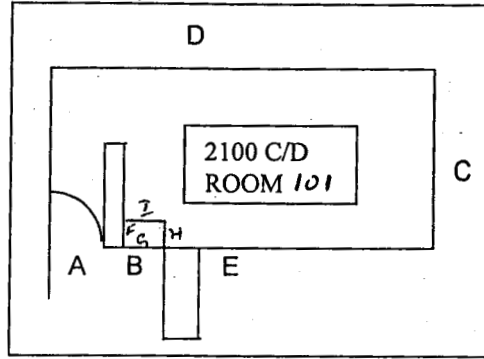
# PROVIDENCE CANCER INSTITUTE - Southfield, MI HDR SOURCE EXCHANGE - RADIATION SURVEY

Date: 2/11/11 Physicist: for Peng Wang Peng Wang

Survey Meter 1: Ion Chamber: Fluke 451B, SN 667 Calibrated 30 Aug 2010

Adjacent Areas: *after source removal*

Position	Location	Reading mR/hr
A	Door	0.01
B	Console	0.02
C	Parking North	0.02
D	Parking West	0.01
E	Waiting Room	0.01
F,G,H,I	Original HDR housing area	0.01



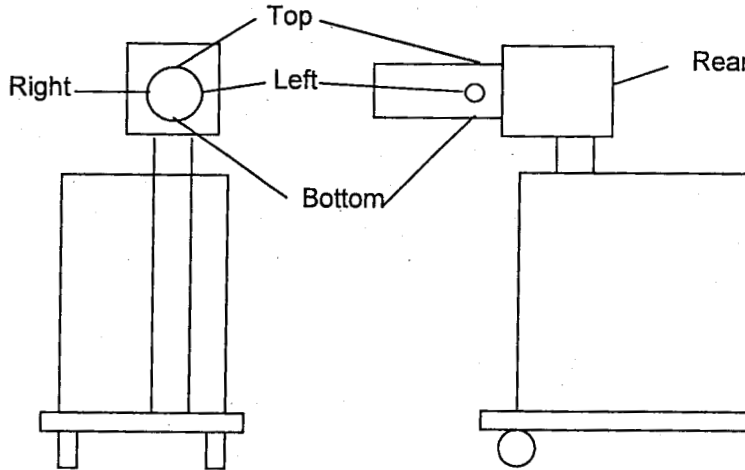
DATE: 2/11/11

	mR/hr	
	at surface	at 10 cm
Top		
Right		
Front		
Left		
Rear		
Bottom		

## GammaMed 12i

DATE: 2/11/11

	mR/hr	
	at surface	at 10 cm
Top	0.01	0.01
Right	0.01	
Front	0.01	
Left	0.01	
Rear	0.01	
Bottom	0.01	



Before Source Exchange

After Source Exchange

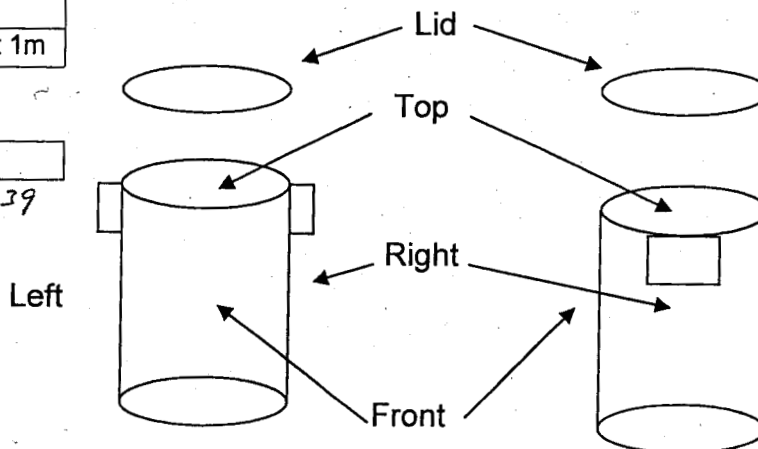
DATE: 2/3/11

	mR/hr	
	at surface	At 1m
Top	1.46	
Right	5.9	
Front	7.9	
Left	13.4	0.39
Rear	12.9	

## Source Shipping Container

DATE: 2/11/11

	mR/hr	
	at surface	At 1m
Top	0.86	
Right	3.5	
Front	4.0	0.09
Left	2.3	
Rear	2.4	



Before Source Exchange

After Source Exchange



# Alpha-Omega Services, Inc.

Where Quality Means Exceeding Expectations

562-804-0604

## MEDICAL SOURCE CERTIFICATE

Customer Name	Providence Hospital & Medical Cent
Machine Number	H630820-GM
Source serial number	22-01-0065-001-101510-11240-04
AOS Work Order Number	A-0151312
Source Type	GM12000550
Model	GammaMed 212
Connector serial number	22-001-0045
Container serial number	839
Source code	GM12000550 12i HDR Gammamed source
Material	AISI 316L
ISO Code	ISO/99/C 63322
Certificate number for special form	USA/0723/S-96 (Revision 1)
Isotope	Iridium-192
Physical form	Solid
Chemical form	Metal
Active dimensions (Diam x h) mm	0.6 mm x 3.5 mm
Capsule dimensions	1.1mm x 5.01mm
Encapsulation	Single
Apparent activity	415.88GBq (11.24 Ci)
Air kerma rate at 1 m	45.747 mGy/h +/- 5%
Calibration date @ 12:00 noon CST	15-Oct-2010
Welding	laser
10 Ci Date	28-Oct-2010

### Tests

Total length	ACCEPTED
Diameter	ACCEPTED
Laser weld visual check	ACCEPTED
Capsule integrity (15N)	ACCEPTED
Cables-connector assembly integrity (40N)	ACCEPTED
Free of surface contamination (*)	ACCEPTED
Leakage test (*)	< 5 nCi

(\*) the surface contamination is detected by the wet wipe test according to the ISO norm 9978 (1992) (5.3.1)

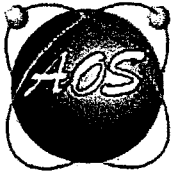
We certify that the source is in compliance with the following norms : NF ISO 9978 (1992), ISO 2919 (1999) and NF M61-002 (1984)

Date : 10/27/10

Responsible for quality control

Signature :

Name : David Mornic, Engineer



# *Alpha-Omega Services, Inc.*

*Where Quality Means Exceeding Expectations*

## TO WHOM IT MAY CONCERN

This will hereby certify that Alpha-Omega Services, Inc., having its HDR facility located at 1282 Bigwoods-Starks Road, Vinton, Louisiana, 70668, USA has received the following container and source:

- Date of returning container : 02/16/2011
- Container serial number : 1093
- Connector number : 22-0045-10
- Source serial number : 22-01-0065-001-101510-11240-04
- Machine number : H630820-GM

From Providence Hospital & Medical Center  
Radiation Oncology  
22301 Foster Winter Drive  
Southfield  
MI  
48075  
USA

This container was originally shipped on behalf of Varian Medical Systems.

The source will be disposed of by Alpha-Omega Services, Inc., at its HDR facility, located at 1282 Bigwoods-Starks Road, Vinton, Louisiana, USA on behalf of Varian Medical Systems. Alpha-Omega Services, Inc. is licensed by the state of Louisiana to perform this service.

David Mornic, Engineer  
Alpha-Omega Services, Inc.  
Tel. 337-589-5720  
Fax 337-589-5955  
[aoslab@alpha-omegaserv.com](mailto:aoslab@alpha-omegaserv.com)

9156 Rose Street • P.O. Box 789 • Bellflower, California, U.S.A. 90706  
Customer Service (800) 346-7894 • (562) 804-0604 • Fax: (562) 804-0610  
[www.alpha-omegaserv.com](http://www.alpha-omegaserv.com)

660 N. McCarthy Blvd  
Milpitas, CA 95035  
USA

<b>Notification No.</b>		<b>PO Number</b>	
<b>Request Date</b>		<b>Event Date</b>	
<b>Field Engineer</b>	ARRUDA, JESSE	<b>Assisted FE</b>	
<b>Customer</b>	PROVIDENCE HOSPITAL; 16001 W NINE MILE RD; SOUTHFIELD MI; US 48075		
<b>Equipment ID</b>	H630820	<b>Equipment Name</b>	GAMMAMED 12i
<b>Notification Equipment ID</b>		<b>Notification Equipment Name</b>	

**Reason for Call**  
De-installation of 12i

<b>High Voltage Hours</b>		<b>Heater Hours</b>	
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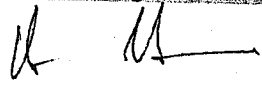
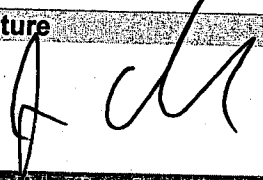
**Corrective Action Comments**  
Customer purchased a GammaMed plusIX. Removed 12i from shared vault after removing its source and shipping it back to AOS in LA. Unit had a depleted uranium safe which needed to be removed and shipped seperately to AOS in California. 12i is being shipped back to charlottesville VA for disposal along with old console monitor and console computer minus the hard drive which was given to the customer

**Times on site**

Request Date	Time In	Time Out	Hours
02/09/2011	01:00 PM	09:45 PM	8.75
<b>Total Non-Chargeable hours</b>	<b>Total Travel Hours</b>	<b>Total Work hours</b>	<b>Total Site Hours</b>
0.00	8.25	8.75	8.75

**Equipment serviced**

Sub-Equipment	System	Sub-system	Request Date	Hours	Activity
H630820-GM	Travel In	Travel In	02/09/2011	8.00	Travel
H630820-GM	Oth Deinstall Of	Oth Deinstall Of	02/09/2011	8.75	Install
H630820-GM	Travel Out	Travel Out	02/09/2011	0.25	Travel

<b>Equipment Released</b> 02/09/2011 09:45 PM	<b>Customer Signature</b> 
	<b>FE Signature</b> 

Customer is responsible for all calibration verification

**UPS Campusship: View/Print Label**

1. **Print the label(s):** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
3. **GETTING YOUR SHIPMENT TO UPS Customers without a Daily Pickup**  
Schedule a same day or future day Pickup to have a UPS driver pickup all your Campusship packages.  
Hand the package to any UPS driver in your area.  
Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services™ (including via Ground) are also accepted at Drop Boxes.  
To find the location nearest you, please visit the Resources area of Campusship and select UPS Locations.

**Customers with a Daily Pickup**

Your driver will pickup your shipment(s) as usual.

FOLD HERE

VRINDA NARAYANA 248.849.8622 PROVIDENCE CANCER CENTER - SOU 22301 FOSTER WINTER DR. SOUTHFIELD MI 48075	0.1 LBS LTR	1 OF 1
<b>SHIP TO:</b> MATERIALS LICENSING BRANCH US NRC REGION III SUITE 210 2443 WARRENVILLE ROAD <b>LISLE IL 60532-4352</b>		
	<b>IL 603 9-03</b> 	
<b>UPS NEXT DAY AIR SAVER 1P</b> TRACKING #: 1Z W22 100 13 9582 7647		
		
BILLING: P/P		
LHM: SOUCAN Cost Center: 807152	CS 13.1.13. WXP1E70 12.0A 01/2011	