OFFICE OF THE SENIOR VICE PRESIDENT AND EXECUTIVE DEAN FOR HEALTH SCIENCES RADIATION SAFETY OFFICE

> Sandy Gabriel, Ph.D., Senior Health Physicist Medical Branch, Division of Nuclear Materials Safety U.S. Nuclear Regulatory Commission - Region I 2100 Renaissance Blvd., Suite 100 King of Prussia, PA 19406-2713

#### SUBJECT: LICENSE 08-03075-07 AMENDMENT REQUEST 03001321

Dear Dr. Gabriel:

1 am submitting NRC form 313A (AMP) for Mr. Jagannadha Rao Nibhanupudy, MSE, as a preceptor. Mr. Rao received training on HDR Brachyvision treatment planning software in November 2009; however since then he never performed any treatment planning using this software independently. To my knowledge, he is not capable of performing HDR treatment planning on any HDR applicators and will need additional training to do. He has received onsite training on VariSource iX HDR system in January 2011 and capable of performing daily quality assurance on the unit. If he qualifies, we would like to request an amendment to License Number 08-03075-07 to add Mr. Jagannadha Rao Nibhanupudy's name to the license as an authorized medical physicist. (Supporting documents included)

<u>HOWARD</u> UNIVERSIT

#### Add: Jagannadha Rao Nibhanupudy, MSE Material and Use: 35.600 Remote afterloader unit(s)

Thank you for your time and consideration in this matter. Please feel free to contact me directly should you need any additional information.

Sincerely,

Satya R. Bose, Ph.D., DABR Director of Radiation Safety & Radiation Safety Officer

cc: Sergei A. Nekhai, Ph.D. Chair, Radiation Safety Committee Department of Medicine, Associate Professor Center for Sickle Cell Disease, Co-Director

> Alice A. Mahan Department Executive Officer for Radiology, Radiation Oncology & the Cancer Center



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NMSS/RGN1 MATERIALS-002

p: (202) 806-7216 f: (202) 806-5432

May 14, 2012

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NRC FORM 313 (3-2009)	A (AMP)		U.S. NUCLEA	R REGULATORY COMMISSION	
AUTHOF		EDICAL PHYSICIS AND PRECEPTOR [10 CFR ]	ATTESTAT	AND EXPERIENCE	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 3/31/2012
Name of Prop	osed Authori	ized Medical Physicist			
JAGANNADH	IA RAO NI	BHANUPUDY			
Requested		35.400 Ophthalmi	c use of strontiu	ım-90 35.600 Telethe	rapy unit(s)
Authorizatio		✓ 35.600 Remote af	iterloader unit(s)	35.600 Gamma	stereotactic radiosurgery unit(s)
				AND EXPERIENCE ree methods below)	
date of applic required train	cation or the	e individual must have	obtained relate ed. Provide date	d continuing education and	the 7 years preceding the d experience since the on of continuing education
✓ 1. <u>Boar</u>	d Certifica	tion			
a. Prov	ide a copy	of the board certification	on.		
	o the table i orization is		aining provider a	nd dates of training for ea	ch type of use for which
c. Skip	to and com	nplete Part II Preceptor	Attestation.		
2. <u>Curr</u>	ent Author	ized Medical Physicis	<u>st Seeking Add</u>	itional Authorization for	use(s) checked above
a. Go te	o the table i	in section 3.c. to docur	ment training for	new device.	
b. Skip	to and com	plete Part II Preceptor	Attestation		
3. <u>Educ</u>	ation, Trai	ning, and Experience	e for Proposed	Authorized Medical Phy	sicist
				physics, medical physics, e	other physical science,
Degree				Major Field	
College	or University				
high	-energy ext		hotons and elec		radiation facilities that provide or than or equal to 1 million
	es. Comp	leted 1 year of full-time	e training in med	lical physics (for areas ide	ntified below) under the
	supervisior	n of	and the second	who meets the req	uirements for an
	Authorized	Medical Physicist.			
			AN	D	
	(es. Comp	leted 1 year of full-time	e work experien	ce in medical physics (for	areas identified below)
	-				neets the requirements for
		zed Medical Physicist.	1076 a 118 4		
NRC FORM 313A (A	MP) (3-2009)		PRINTED ON RECYCI	LED PAPER	PAGE 1

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#### NRC FORM 313A (AMP) (3-2009)

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#### U.S. NUCLEAR REGULATORY COMMISSION

#### 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+	Training*	Dates of Work Experience*
Medical Physics			
Performing sealed source leak tests and inventories			
Performing decay corrections			
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)			
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)			
Supervising Individual**	License/Permit Number listin authorized Medical Physicist		dividual as an
for the following types of use:			
Remote afterloader unit(s)	Teletherapy unit(s)	stereotactic rad	liosurgery unit(s)
<ul> <li>Training and work experience must be or electrons with energies greater than or electrons</li> </ul>	conducted in clinical radiation facilities that provide high-ener equal to 1 million electron volts) and brachytherapy services.	gy external beam th	herapy (photons and
* 1 year of Full-time medical physics train	ing and 1 year of full time work experience cannot be concur	rent.	
	t an authorized medical physicist, the licensee must submit on nee requirements in 10 CFR 35.51 and 35.59 for the types o		

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#### 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 Afterloade	r Teletherapy	G	amma Stereotactic Radiosurgery	
Hands-on device operation	Radiation Oncology Dept., Howard Univ.Hospital Washington,D.C20060 3-7-2011-present	N/A	N/A		
Safety procedures or the device use	**	17	**		
Clinical use of the levice	••	11	11		
Treatment planning system operation	Mr. Rac had train on HDR- treadplan but, not capable Performing treatme	ning	11		
		License/Permit Number		dividual as an	
Dr.SATYA R.BOSE		USNRC Lic# 08-03075-0	07		
for the following typ ✔ Remote afterlo		eletherapy unit(s)	Gamma stereotact	tic radiosurgery unit(s	
f Applicable:					
Authorization Sought Device		ce Training P	rovided By	Dates of Training	
35.400 Ophthalmic of strontium-90	: Use				

(3-2009)	ORM 313A (AMP)		U.S. NUCLEAR REGULATORY COMMI
		AL PHYSICIST TRAINING AND	D EXPERIENCE AND PRECEPTOR ATTESTATION (contin
		PART II – PRE	CEPTOR ATTESTATION
Note:	individual as lon	g as the preceptor provides, dir	preceptor. The preceptor does not have to be the supervisin rects, or verifies training and experience required. If more that ence, obtain a separate preceptor statement from each.
	Section	wing:	
	1. <u>Board Certif</u>	lication	
	✓ I attest that		has satisfactorily completed the requirements in
	10 CFR 35.5	Name of Proposed Authorized Medical 51(a)(1) and (a)(2).	
	2 Education 7	Fraining and Experience	OR
		Fraining, and Experience	
	I attest that		has satisfactorily completed the 1-year of full-time
	training in m 35.51(b)(1).	Name of Proposed Authorized Medical edical physics and an additiona	Physicist Il year of full-time work experience as required by 10 CFR
			AND
	d Section		
Comp	lete the following	<b>j</b> :	
	✓ I attest that	J.RAO NIBHANUPUDY Name of Proposed Authorized Medical	has training for the types of use for which authorizat
			Physicist
		at include hands-on device oper anning system.	Physicist ration, safety procedures, clinical use, and the operation of a
			ration, safety procedures, clinical use, and the operation of a
 Third (	treatment pla		-
		anning system.	ration, safety procedures, clinical use, and the operation of a
	treatment pla	anning system. g: J.RAO NIBHANUPUDY	AND has achieved a level of competency sufficient to
	treatment pla Section lete the following ✓ I attest that	J.RAO NIBHANUPUDY Name of Proposed Authorized Medical	AND has achieved a level of competency sufficient to
	treatment pla Section lete the following ✓ I attest that function inde	J.RAO NIBHANUPUDY Name of Proposed Authorized Medical ependently as an Authorized Medical	AND has achieved a level of competency sufficient to Physicist edical Physicist for the following:
	treatment pla Section lete the following ✓ I attest that function inde	J.RAO NIBHANUPUDY Name of Proposed Authorized Medical	AND has achieved a level of competency sufficient to
	treatment pla Section lete the following ✓ I attest that function inde	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Me Ophthalmic use of strontium-90	AND has achieved a level of competency sufficient to Physicist edical Physicist for the following: 35.600 Teletherapy unit(s) 35.600 Gamma stereotactic radiosurgery unit(s)
Comp	treatment pla Section lete the following ✓ I attest that function inde	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Me Ophthalmic use of strontium-90	AND has achieved a level of competency sufficient to Physicist edical Physicist for the following: 35.600 Teletherapy unit(s)
Comp Fourth	treatment pla Section lete the following I attest that function inde 35.400 C I 35.600 F	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Me Ophthalmic use of strontium-90	AND has achieved a level of competency sufficient to Physicist addical Physicist for the following: 35.600 Teletherapy unit(s) AND AND
Comp Fourth	treatment pla Section lete the following ✓ I attest that function inde 35.400 C ✓ 35.600 F Section lete the following ✓ I meet the re	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Medical Ophthalmic use of strontium-90 Remote afterloader unit(s) <b>g for preceptor attestation and</b> equirements in 10 CFR 35.51. o	AND  has achieved a level of competency sufficient to  Physicist edical Physicist for the following:  35.600 Teletherapy unit(s)  35.600 Gamma stereotactic radiosurgery unit(s)  AND d signature: or equivalent Agreement State requirements for Authorized
Comp Fourth	treatment pla Section lete the following ✓ I attest that function inde 35.400 C ✓ 35.600 F Section lete the following ✓ I meet the re Medical Phy	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Medical Ophthalmic use of strontium-90 Remote afterloader unit(s) <b>g for preceptor attestation and</b> equirements in 10 CFR 35.51. o	AND  has achieved a level of competency sufficient to  Physicist edical Physicist for the following:  35.600 Teletherapy unit(s)  35.600 Gamma stereotactic radiosurgery unit(s)  AND  d signature:  r equivalent Agreement State requirements for Authorized  for treatment Planning on HDR - See Comme  State Section
Comp Fourth	treatment pla Section lete the following ↓ I attest that function inde 35.400 C ↓ 35.600 F Section lete the following ↓ I meet the re Medical Phy 35.400 C	J.RAO NIBHANUPUDY Name of Proposed Authorized Medical ependently as an Authorized Medical Ophthalmic use of strontium-90 Remote afterloader unit(s) g for preceptor attestation and equirements in 10 CFR 35.51, o sicist for the following: LXCe f	AND  has achieved a level of competency sufficient to  Physicist  adical Physicist for the following:  35.600 Teletherapy unit(s)  35.600 Gamma stereotactic radiosurgery unit(s)  AND  d signature:  requivalent Agreement State requirements for Authorized  treadment Manning on HDR - See Comme
Fourth Compl	treatment pla Section lete the following ↓ I attest that function inde 35.400 C ↓ 35.600 F Section lete the following ↓ I meet the re Medical Phy 35.400 C	<b>J.RAO NIBHANUPUDY</b> Name of Proposed Authorized Medical ependently as an Authorized Medical Ophthalmic use of strontium-90 Remote afterloader unit(s) <b>g for preceptor attestation and</b> equirements in 10 CFR 35.51, o sicist for the following: $x x c c f$	AND  has achieved a level of competency sufficient to  Physicist edical Physicist for the following:  35.600 Teletherapy unit(s)  35.600 Gamma stereotactic radiosurgery unit(s)  AND  d signature:  r equivalent Agreement State requirements for Authorized  treatment Planning on HDR - See Comme  35.600 Teletherapy unit(s)  Con Sechim  35.600 Teletherapy unit(s)  Con Sechim  35.600 Teletherapy unit(s)

NRC FORM 313A (AMP)	U.S. NUCLEAR REGUL	ATORY COMMISSION				
AUTHORIZED MEDICAL PHYSICIS AND PRECEPTOR [10 CFR	RATTESTATION	EXPERIENCE	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008			
Name of Proposed Authorized Medical Physicist J. RAO NI BHANC	PUDY					
Requested 35.400 Ophthalm Authorization(s) (check all that apply) X 35.600 Remote at	ic use of strontium-90 fterloader unit(s)	35.600 Telethera 35.600 Gamma s	py unit(s) tereotactic radiosurgery unit(s)			
	I TRAINING AND EX					
*Training and Experience, including Board Cer date of application or the individual must have required training and experience was complete and experience related to the uses checked at	obtained related continued. Provide dates, durat	ing education and e	experience since the			
1. Board Certification						
a. Provide a copy of the board certification	on.					
<ul> <li>b. Go to the table in 3.c. and describe tra authorization is sought.</li> </ul>	b. Go to the table in 3.c. and describe training provider and dates of training for each type of use for which					
c. Skip to and complete Part II Preceptor	c. Skip to and complete Part II Preceptor Attestation.					
2. Current Authorized Medical Physicis	2. Current Authorized Medical Physicist Seeking Additional Authorization for use(s) checked above					
a. Go to the table in section 3.c. to docum	nent training for new dev	ice.				
b. Skip to and complete Part II Preceptor	Attestation					
3. Education, Training, and Experience	for Proposed Authoriz	ed Medical Physic	ist			
<ul> <li>Education: Document master's or doct engineering, or applied mathematics from</li> </ul>			er physical science,			
Degree	Major Fiel	d				
College or University						
<ul> <li>b. Supervised Full-Time Medical Physics high-energy external beam therapy (phy electron volts) and brachytherapy service</li> </ul>	otons and electrons with					
Yes. Completed 1 year of full-time t	training in medical physic	s (for areas identifie	ed below) under the			
supervision of	who	o meets the requirer	nents for an			
Authorized Medical Physicist.						
	AND					
Yes. Completed 1 year of full-time w	vork experience in medic	al physics (for areas	s identified below)			
under the supervision of			the requirements for			
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NRC FORM 313A (AMP) 10-2006)	U.S. NU		TORY COMMIS
	TRAINING AND EXPERIENCE AND PRECEPTO	RATTESTA	FION (contin
3. Education, Training, and Experi	ence for Proposed Authorized Medical Physicis	t (continued)	
	Physics Training and Work Experience (continued)		
If more than one supervising in this page.	ndividual is necessary to document supervised train	ing, provide rr	ultiple copie
Description of Training/ Experience	Location of Training/License or Permit Number of Training Facility/Medical Devices Used+	Dates of Training*	Dates of W Experienc
Medical Physics			2 2
Performing sealed source leak tests and inventories			-
· · · · · · · · · · · · · · · · · · ·			1
Performing decay corrections			n an
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)		1	
Conducting radiation surveys around external beam treatment unit(s), sterotactic radiosurgery unit(s), remote after loading unit(s)		I	
Supervising Individual**	License/Permit Number listing su authorized Medical Physicist	pervising indivi	dual as an
stereotactic radiosurgery unit(s) Performing full calibration and periodic spot checks of remote afterloading unit(s) Conducting radiation surveys around external beam treatment unit(s), sterotactic radiosurgery unit(s), remote after loading unit(s)		pervising indivi	idua
for the following types of use:			
Remote afterloader unit(s)	Teletherapy unit(s) Gamma stere	otactic radios	urgery unit(
	nducted in clinical radiation facilities that provide high-energy ex qual to 1 million electron volts) and brachytherapy services.	ternal beam the	apy (photons a

	CAL PHYSICIST TRAINING AND	EXPERIENCE AND PRECEPTO	R ATTESTATION (continu
Education, Train	ing, and Experience for Propos	ed Authorized Medical Physicis	t (continued)
c. Describe traini	ng provider and dates of training	for each type of use for which auth	orization is sought.
Description of Training		Training Provider and Dates	
	Remote Afterloader	Teletherapy	Gamma Stereotactic Radiosurgery
Hands-on device operation	LONG BEACH MEMORIAL MEDICAL CENTER LONG BEACH. CA90806. 8-24-2009 THRU 8-28-2009.	N/A	NIA
Safety procedures for the device use	))	rv/A	N/A
Clinical use of the device	,)	NA	NA
Treatment planning system operation	))	NA	NIA
Supervising Individua If training is provided by Supervisindividual is necessary to docum this page.) for the following type X Remote afterload	sing Medical Pysicist, (if more than one supervising ent supervised training, provide multiple copies of BS OF USE:	License/Permit Number listing supervi Medical Physicist CALIFVRWIA STATE RI LICENSE NO: 0165-	ADIOACTIVE MATERIAL
f Applicable:	NA		
Authorization So	ught Device	Training Provided By	Dates of Training
<b>35.400 Ophthalmic L</b> of strontium-90	<b>Jse</b>		

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	ORM 313A (AMP)	U.S. NUCLEAR REGULATORY COMMISSION
(10-2006) AUTH	HORIZED MEDICAL PHYSICIST TRAINING AND	EXPERIENCE AND PRECEPTOR ATTESTATION (continued)
<u> </u>	PART II – PREC	EPTOR ATTESTATION
Note:	individual as long as the preceptor provides, dire	preceptor. The preceptor does not have to be the supervising cts, or verifies training and experience required. If more than nce, obtain a separate preceptor statement from each.
First S	Section	
Check	c one of the following:	
	1. Board Certification	
	X I attest that J.RAO NIBHANUPUDY Name of Proposed Authorized Medical Ph	has satisfactorily completed the requirements in
	10 CFR 35.51(a)(1) and (a)(2).	
	2. Education, Training, and Experience	OR
		has actisfactorily completed the 1 year of full time
	I attest that Name of Proposed Authorized Medical Phy	has satisfactorily completed the 1-year of full-time
		year of full-time work experience as required by 10 CFR
_		AND
	d Section ete the following:	
	Name of Proposed Authorized Medical Phy	has training for the types of use for which authorization
	is sought that include hands-on device operati treatment planning system.	on, safety procedures, clinical use, and the operation of a
		AND
	Section Ste the following:	
	X I attest that J. RAO NIBHANUPUDY Name of Proposed Authorized Medical Physics	has achieved a level of competency sufficient to
	function independently as an Authorized Medic	al Physicist for the following:
	35.400 Ophthalmic use of strontium-90	35.600 Teletherapy unit(s)
		35.600 Gamma stereotactic radiosurgery unit(s)
ourth S	Section /	AND
	te the following for preceptor attestation and si	gnature:
2	K I meet the requirements in 10 CFR 35.51, or eq Medical Physicist for the following:	uivalent Agreement State requirements for Authorized
	35.400 Ophthalmic use of strontium-90	35.600 Teletherapy unit(s)
	X 35.600 Remote afterloader unit(s)	35.600 Gamma stereotactic radiosurgery unit(s)
ame of F	Preceptor Signature	RIAL MEDICAL CENTER, LONGBEACH, CA 90806
UR. AN		(564/1) - 0700, 0-20-200).
cense/P	California State RAML #	0165-19

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BRACHYTHERAPY

Certificate of Attendance Presented To: Howard University Hospital Washington, DC

Jagannadha Rao Nibhanupudy

For Attending Classroom Training Courses VariSource iX™ and BrachyVision Treatment Planning

Training Course Dates: November 17-20, 2009

Trainers: Mike Mariscal and David Harrington

Varian BrachyTherapy – The Better Solution.





BRACHYTHERAPY

## **Certificate of Attendance**

**Presented To:** Howard University Hospital Washington, DC

Oscar Streeter, MD Satya Bose Jacquelyn Dunmore-Griffith, MD J. Rao Nibhanupudy Terri Hunter Echols Tamara Garnett Sosena Asrat

## For Attending Training:

VariSource iX HDR System<sup>™</sup> January 4-6. 2011

Instructor: Mike Mariscal

Varian BrachyTherapy – The Better Solution.



The American Board of Radiology (Aganized through the cooperation of the American College of Radiology, the American Roentgen Ray Society. the American Rudium Society, the Radiological Vociety of North America, the Section on Radiology of the American Medical Association and the American Society of Therapoutic Radiologists Hereby certifies that Jagannadha Rao Nibhanupudy, M.S.E. Has pursued an accepted course of graduate study and clinical work, has met certain standards and qualifications and has passed the examinations conducted under the authority of The American Board of Radiology On this eighteenth day of June, 1976 Thereby demonstrating to the satisfaction of the Board that he is qualified to practice the specialty of Therapeutic Radiological Physics Robert N. Cooley C. allen Good

# The University of Washington The University of Washington

With all all .

The Regents of the University on recommendation of the University Faculty and by virtue of the Authority vested in Them by Law have this day admitted

> Nibhanupudy Jagannadha Rao to the degree of

Master of Science in Engineering

and have granted all the Rights. Privileges and Honors thereto pertaining



Given at Seattle, in the State of Washington, this twenty-first Day of August. One Thousand Nine Hundred and Seventy, in the One Hundred and tenth Year of the University. Nuclear

Charles E Cargana Bresident of the Hintpersity Fourill Jung - M Carthy ard of Regents

This is to acknowledge the receipt of your letter/application dated

technical reviewer. Please note that the technical review may identify additional omissions or require additional information. Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

NRC FORM 532 (RI) (6-96) Sincerely, Licensing Assistance Team Leader