Boone Hospital Center

1600 East Broadway Columbia, Missouri 65201 Phone: 573-815-8000

July 10, 2013

US Nuclear Regulatory Commission Region III Materials Licensing Section 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352

License Number: 24-01565-01

Dear NRC Reviewer,

Gregory Biedermann, M.D. is currently listed on our license as an Authorized User for 10 CFR 35.00 material- limited to the oral administration of sodium iodide-131. He has recently completed the supervised case experience required to administer additional unsealed by-product material requiring a written directive for uses authorized under 35.300.

Enclosed is NRC Form 313A (AUT) for your review. I completed the table in section 3C to document his three supervised clinical cases per 10 CFR 35.396.

Dr. Biedermann's preceptor (Dr. Mark Bryer) is listed as an Authorized User of any 35.300 or 35.400 material on our NRC license no. 24-01565-01.

Please contact me if you need any additional information to show that Dr. Biedermann meets the correct training and experience requirements to be authorized to use all 35.300 licensed material.

Sincerely, Liege Myers

Liesje Myers

Radiation Safety Officer Boone Hospital Center

NRC FORM 313A (AUT)

U.S. NUCLEAR REGULATORY COMMISSION

(05-2012)

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (for uses defined under 35.300)

APPROVED BY OMB: NO. 3150-0120 EXPIRES: (05/31/2015)

[10 CFR 35.390, 35.392, 35.394, and 35.396] Name of Proposed Authorized User State or Territory Where Licensed Gregory Biedermann, M.D. Missouri License (as Medical Physician and Surgeon) Requested Authorization(s) (check all that apply): √ 35,300 Use of unsealed byproduct material for which a written directive is required **OR** 35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries) 35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries) 35.300 Parenteral administration of any beta-emitter, or 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 **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 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. For 35.390, provide documentation on supervised clinical case experience. The table in section 3.c. may be used to document this experience. c. For 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 3.a., 3.b., and 3.c. may be used to document this experience. d. Skip to and complete Part II Preceptor Attestation. ✓ 2. Current 35.300, 35.400, or 35.600 Authorized User Seeking Additional Authorization under the requirements below or a. Authorized User on Materials License 24-01565-01 equivalent Agreement State requirements (check all that apply): 35.690 35.390 **√** 35.394 35.490 ✓ 35.392 b. If currently authorized for a subset of clinical uses under 35.300, provide documentation on additional required supervised case experience. The table in section 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation. c. If currently authorized under 35.490 or 35.690 and requesting authorization for 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 3.a., 3.b., and 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.

3. Training and Experience fo	r Proposed Authorize	ed User			
a. Classroom and Laboratory Tr	aining	35.392	35.39	4	35.396
Description of Training	Location	on of Training		Clock Hours	Dates of Training*
Radiation physics and instrumentation					
Radiation protection					
Mathematics pertaining to the use and measurement of radioactivity					
Chemistry of byproduct material for medical use					
Radiation biology					
	Total Hours of Train	ning:			
b. Supervised Work Experience	L	35.392	35.39	_	35.396
 b. Supervised Work Experience If more than one supervising of this page. Supervised Wo 	individual is necessar	y to document sup		ng, provide r	
If more than one supervising of this page.	n individual is necessar ork Experience Location of E	y to document sup	ervised trainin	ng, provide r	
If more than one supervising of this page. Supervised Wo Description of Experience Must Include: Ordering, receiving, and unpacking radioactive materials safely and performing the	n individual is necessar ork Experience Location of E	y to document sup Total Ho xperience/License	ervised trainin	ng, provide r	multiple copies
If more than one supervising of this page. Supervised Wo Description of Experience Must Include: Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of	n individual is necessar ork Experience Location of E	y to document sup Total Ho xperience/License	ervised trainin	ng, provide rence: Confirm Yes	multiple copies
If more than one supervising of this page. Supervised Wo Description of Experience Must Include: Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters Calculating, measuring, and safely preparing patient or human research subject	n individual is necessar ork Experience Location of E	y to document sup Total Ho xperience/License	ervised trainin	ence: Confirm Yes No Yes	multiple copies
If more than one supervising of this page. Supervised Wo Description of Experience Must Include: Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters Calculating, measuring, and	n individual is necessar ork Experience Location of E	y to document sup Total Ho xperience/License	ervised trainin	ence: Confirm Yes No Yes No	multiple copies

(05-2012)

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Supervising Individual			License/Permit Number listing supervising individual as an authorized user			
						Supervising in pply)**:
35.390	With experience a	administering dosage	s of:			
35.392		requiring a written dir ls (33 millicuries)	uiring a written directive in quantities less than or equal to 1.22 33 millicuries) uantities greater than 1.22 gigabecquerels (33 millicuries)			
35.394		,				
35.396			mitter, or photon-emitting radionuclide with a gawritten directive is required	photon		
	Parenteral ad	ministration of any ot	her radionuclide requiring a written directive			
If more th			ry to document supervised work experience,	provide		
multiple o	opies of this page.					
-	on of Experience	Number of Cases Involving Personal Participation	Location of Experience/License or Permit Number of Facility	Dates of Experience		
Description Oral administ odide I-131 in irective in q	tration of sodium requiring a written uantities less than .22 gigabecquerels	Involving Personal				
Description Dral administodide I-131 receive in qual to 133 millicuries Dral administodide I-131 receive in qual receive in	tration of sodium requiring a written uantities less than .22 gigabecquerels	Involving Personal				
Description Descr	tration of sodium requiring a written uantities less than .22 gigabecquerels s) tration of sodium requiring a written uantities greater gabecquerels (33 dministration of itter, or ing radionuclide in energy less than which a written	Involving Personal				

raining an					
		rience for Proposed Authorized	User (continued)		
:. Supervis	ed Clini	cal Case Experience (continued)			
Supervising I	ndividual		License/Permit Number listing supervising individual as an authorized user		
Mark Bryer,	M.D.		NRC Materials Use License # 24-01565-01		
Supervising apply)**:	individu	al meets the requirements below,	or equivalent Agreement State requirements (check all that		
✓ 35.390	With	experience administering dosage	s of:		
35.392		ral Nal-131 requiring a written dire gabecquerels (33 millicuries)	ten directive in quantities less than or equal to 1.22 s)		
✓ 35.394	 ✓ C	ral Nal-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)			
✓ 35.396 ✓ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required					
	✓ P	arenteral administration of any oth	ner radionuclide requiring a written directive		
* Supervisin requesting	g Authoriz authorize	ed User must have experience in administ d user status.	ering dosages in the same dosage category or categories as the individual		
J. Provide	complet	ed Part II Preceptor Attestation.			
This part	t must b		PTOR ATTESTATION eceptor. The preceptor does not have to be the supervising		
individua one pred By check	il as long eptor is ting the	e completed by the individual's program as the preceptor provides, direct necessary to document experience poxes below, the preceptor is atte	PTOR ATTESTATION ecceptor. The preceptor does not have to be the supervising s, or verifies training and experience required. If more than ce, obtain a separate preceptor statement from each. sting that the individual has knowledge to fulfill the duties of eal's "general clinical competency."		
individua one pred By check	il as long eptor is ting the	e completed by the individual's program as the preceptor provides, direct necessary to document experience poxes below, the preceptor is atte	eceptor. The preceptor does not have to be the supervising s, or verifies training and experience required. If more than ce, obtain a separate preceptor statement from each. sting that the individual has knowledge to fulfill the duties of		
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individua one pred By check the positi Section k one of the For 35.390: Board C I atte requi	eptor is sing the son sough efollower that	e completed by the individual's pregas the preceptor provides, direct necessary to document experience poxes below, the preceptor is attended and not attesting to the individual and not attesting to the individual and for each requested authorization. Gregory Biedermann, M.D. Name of Proposed Authorized User in 35.390(a)(1).	eceptor. The preceptor does not have to be the supervising s, or verifies training and experience required. If more than be, obtain a separate preceptor statement from each. sting that the individual has knowledge to fulfill the duties of eal's "general clinical competency." zation: has satisfactorily completed the training and experience		

NRC FORM 313A (AUT)		U.S. NUCLEAR REGULATORY COMMISSION
(05-2012) AUTHORIZEI	D USER TRAINING AND EXPERIE	ENCE AND PRECEPTOR ATTESTATION (continued)
Preceptor Attestation	(continued)	
First Section (con	tinued)	
For 35.392 (Identi	cal Attestation Statement Regard	dless of Training and Experience Pathway):
I attest that		has satisfactorily completed the 80 hours of classroom
	Name of Proposed Authorized User	
	ory training, as required by 10 CFR (required in 35.392(c)(2).	35.392(c)(1), and the supervised work and clinical case
For 35.394 (Identi	ical Attestation Statement Regard	dless of Training and Experience Pathway):
I attest that		has satisfactorily completed the 80 hours of classroom
	Name of Proposed Authorized User	
	ory training, as required by 10 CFR (required in 35.394(c)(2).	35.394 (c)(1), and the supervised work and clinical case
Second Section		
✓ I attest that		has satisfactorily completed the required clinical case
	Name of Proposed Authorized User	
experience r	required in 35.390(b)(1)(ii)G listed b	pelow:
	-131 requiring a written directive in q querels (33 millicuries)	quantities less than or equal to 1.22
☐ Oral Nal-	-131 in quantities greater than 1.22	gigabecquerels (33 millicuries)
	ral administration of beta-emitter, or ess than 150 keV requiring a written	photon-emitting radionuclide with a photon directive is required
Parenter	ral administration of any other radior	nuclide requiring a written directive
Third Section		
✓ I attest that	Gregory Biedermann, M.D.	has satisfactorily achieved a level of competency to
	Name of Proposed Authorized User	
function inde	ependently as an authorized user fo	or:
	-131 requiring a written directive in querels (33 millicuries)	quantities less than or equal to 1.22
☐ Oral Nal	-131 in quantities greater than 1.22	gigabecquerels (33 millicuries)
	ral administration of beta-emitter, or ess than 150 keV requiring a written	photon-emitting radionuclide with a photon directive is required
Parenter	ral administration of any other radior	nuclide requiring a written directive

NRC FORM 313A (AUT) (05-2012)				U.S. NUCLEAR REGULA	TORY COMMISSION
AUTHORIZ	ED USER TRAINII	NG AND EXPERI	ENCE AND PRECEPT	FOR ATTESTATION (co	ontinued)
Fourth Section					
For 35.396:					
<u>Current 35.49</u>	0 or 35.690 autho	rized user:			
I attest that	W. T. S. C.	posed Authorized User	is an authorized ι	user under 10 CFR 35.4	90 or 35.690
laboratory t experience	ent Agreement Stat training, as require	te requirements, had by 10 CFR 35.3 (6(d)(2), and has a	396 (d)(1), and the supe	eted the 80 hours of clas ervised work and clinical npetency sufficient to fun	case
Parente	eral administration of the second sec	of any beta-emitte written directive is	er, or photon-emitting ra required	adionuclide with a photo	n energy less
Parente	eral administration	of any other radio	nuclide for which a wrif	tten directive is required	
		ı	OR		
Board Certific	ation:				
I attest that	t		has satisfactorily	completed the board ce	rtification
	,	posed Authorized User			
required by	/ 10 CFR 35.396 (c 2), and has achieve	d)(1) and the supe	ervised work and clinical	of classroom and laborat al case experience requin action independently as a	red by
Parente	eral administration of the contraction of the contr	of any beta-emitte written directive is	er, or photon-emitting ra required	adionuclide with a photo	n energy less
Parente	ral administration	of any other radio	nuclide for which a writ	tten directive is required	
Fifth Section Complete the follow	ing for preceptor	attestation and	signature:		
✓ I meet the req	uirements below, o	or equivalent Agre	ement State requireme	ents, as an authorized us	ser for:
✓ 35.390	✓ 35.392	√ 35.394	✓ 35.396		
✓ I have experie requesting aut		dosages in the fol	llowing categories for w	which the proposed Auth	orized User is
Oral Nal-13 millicuries)	. •	en directive in qua	antities less than or equ	ual to 1.22 gigabecquere	els (33
Oral Nal-13	31 in quantities gre	ater than 1.22 gig	gabecquerels (33 millicu	uries)	
	administration of b quiring a written di			lide with a photon energ	y less than
Parenteral	administration of a	iny other radionuc	clide requiring a written	directive	
Name of Preceptor		Signature	2 1	Telephone Number	Date
Mark Bryer, M.D.		mun	-PM MY)	(573) 442-5525	07/10/2013
License/Permit Number	/Facility Name		1		
Authorized Hear for all	35 300 and 35 400 -	material on NRC M	aterials Use License # 24	4-01565-01 / Boone Hosni	ital Center

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Columbia, MO 65201

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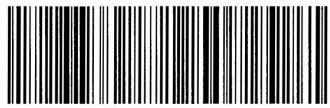
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REGION 3

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LISLE, IL IL 5738153212