CRITTENTON

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November 30, 2011

UNITED STATES NUCLEAR REGULATORY COMMISSION
Region III, Materials Licensing Section
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

ATTN: Colleen Carol Casey

Re: Additional information for control number 574200
License No. 21-13562-01, Crittenton Hospital Medical Center.

Item 1: Please find the enclosed Radiation Safety Officer Letter of Understanding for Dr. Bender. Please find the enclosed NRC313a(RSO) form for your review.

Item 2: Please remove 31.11 from the license. The last year of use was prior to 1989. Due to the length of time, no documentation of the waste disposal can be located. There are no records of having a liquid scintillation detector at Crittenton Hospital Medical Center, therefore, Carbon-14, Hydrogen-3, Iron-59 were never used for in-vitro clinical or laboratory tests. Due to the length of time, all Iodine-125 would have decayed to background and been disposed as non-radioactive waste. Mock Iodine-125 reference or calibration sources (using Iodine-129 or Americium-241) were not received at Crittenton Hospital Medical Center. Co-57 sources in units not to exceed 10 microcuries used for in-vitro clinical tests were utilized in the Nuclear Medicine Department. All sources were decayed to background prior to disposal in non-radioactive waste. These sources have not been used in over 3 years therefore all waste records have been destroyed. Since the department is still currently using licensed material under 35.100, 35.200, and 35.300, no close out surveys have been performed.

Item 3: Please list Carla Cook, M.D. as an Authorized User for 35.400 and 35.600, limited to iridium-192 in an HDR remote afterloading brachytherapy unit.

Item 6: Emergency Response equipment for manual brachytherapy is as follows: portable lead containers and forceps - both reverse action and regular are available. All radioactive seeds are accounted for during the procedure. Contaminated and unused seeds are placed in the lead container and returned to Nuclear Medicine for storage. Patients are provided with safety instructions.

Thank you for you cooperation with this matter. If you have any questions or require additional information, please contact our physicist, Michelle L. Kritzman, at (734) 662-3197 or by email at mkritzman@mpcphysics.com

Respectfully,

Lynn C. Ofgen
President & CEO
Crittenton Hospital Medical Center
Rochester, Michigan 48307

NRC FORM 313A (RSO) (3-2009) 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: 3/31/2012

Name of Proposed Radiation Safety Officer

Judith M. Bender, M.D.

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			
Radiation protection			
Mathematics pertaining to the use and measurement of radioactivity			
Radiation biology			
Radiation dosimetry			
Total Hours of Training:			

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(3-2009)

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		
Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides		
Securing and controlling byproduct material		
Using administrative controls to avoid mistakes in administration of byproduct material		
Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures		
Using emergency procedures to control byproduct material		
Disposing of byproduct material		
Licensed Material Used (e.g., 35.100, 35.200, etc.)+ _____ _____ _____ _____		

+ 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).

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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

This license authorizes the following medical uses:

☐ 35.100 ☐ 35.200 ☐ 35.300 ☐ 35.400
☐ 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		
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):		

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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
V. Elayne Arterbery, M.D.	**21-13562-01**

License/Permit lists supervising individual as:

☑ Radiation Safety Officer ☐ Authorized User ☐ Authorized Nuclear Pharmacist
☐ Authorized Medical Physicist

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

☐ 35.100 ☐ 35.200 ☐ 35.300 ☑ 35.400
☐ 35.500 ☑ 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

☐ **2. Structured Educational Program for Proposed Radiation Safety Officers**

☐ I attest that _____ 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).

OR

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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 **Judith M. Bender, M.D.** 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 **Judith M. Bender, M.D.** 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:

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

AND

Third Section
Complete for ALL

☑ I attest that **Judith M. Bender, M.D.** 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 **Crittenton Hospital Medical Center**
Name of Facility

License/Permit Number: **21-13562-01**

Name of Preceptor	Signature	Telephone Number	Date
V. Elayne Arterbery, M.D.		(248) 844-4025	10/24/11

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FACSIMILE TRANSMITTAL SHEET

TO: Colleen Carol Casey	FROM: William Bell, Jr.
COMPANY: NRC	DATE: 12/5/2011
FAX NUMBER: (630) 515-1078	TOTAL NO. OF PAGES INCLUDING COVER: Nine (9)
PHONE NUMBER: (248) 652-5111	SENDER'S REFERENCE NUMBER: License No. 21-13562-01
RE: Control #318832 Additional Information	YOUR REFERENCE NUMBER: N/A

URGENT X FOR REVIEW PLEASE COMMENT PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

To Colleen:

Thank you for your assistance with our Additional Information with control number 318832.

Have a Blessed Day