



**UNITED
HOSPITAL
CENTER**

Post Office Box 1680 Clarksburg, West Virginia 26302-1680 Telephone 304/624-2574

June 5, 2009

*MS16
J-9*

Licensing Assistant Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

03003375

Re: NRC License #47-01458-01; request for amendment
Mail Control #143718

On May 6 we submitted a request to add Brian Bennett as an AMP on our license. In a phone conversation you requested additional documentation. The following documents are attached:

- A copy of Mr. Bennett's Master of Science degree from the University of Cincinnati
- A copy of the document naming Howard Elson an AMP on the University of Cincinnati broad scope license.
- A copy of the document naming Howard Elson an AMP on The University Hospital broad scope license.

I am submitting both documents for Dr. Elson because The University Hospital separated from the University of Cincinnati and obtained its own license during the course of Mr. Bennett's training.

If you have any questions or require additional information, contact me at (304) 624-2574.

Thank you.

Sincerely

James W. Israel, M.S., DABR
Chief Medical Physicist and Radiation Safety Officer

143718

The Board of Trustees of the
University of Cincinnati

on the recommendation of the Faculty of the

Graduate School

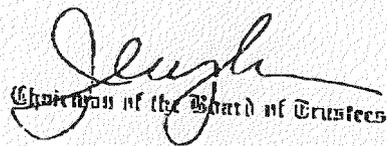
of the University, does hereby confer upon

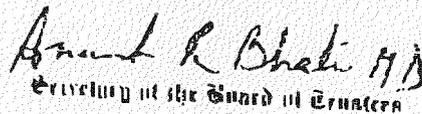
Brian Richard Bennett

the degree of

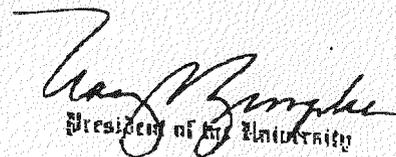
Master of Science

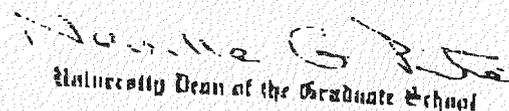
*with all the rights and privileges appertaining thereto. Given at Cincinnati, Ohio
this twenty-second day of March, two thousand and eight.*


Chairman of the Board of Trustees


Anand K. Bhatia M.D.
Secretary of the Board of Trustees




President of the University


University Dean of the Graduate School

**University of Cincinnati
Authorized Medical Physicist
Authorization**

Authorization: 05-E02-35-1AMP: Elson, HowardAmendment No: 0Amendment Date: N/A

In accordance with the statements and representations made in your original application "Application for Authorized Medical Physicist", dated 08/02/05 and subsequent amendments and renewals, this authorization is hereby granted by the University of Cincinnati Radiation Safety Committee. This authorization shall be deemed to contain all applicable conditions specified in the University's ODH license(s), the University's Radiation Control and Safety Program, the University's Medical Physics Procedures Manual (AMP Manual) and any conditions as stated herein.

The duration of this authorization is for a period of 3 years. Prior to 03/31/08, a renewal application must be completed and submitted to the Radiation Safety Office for the authorization to remain active.

I. AUTHORIZED PROCEDURES:

Therapeutic radiologic physics tasks related to Sr-90 sources for ophthalmic treatment.

Therapeutic radiologic physics tasks related to a high dose rate remote afterloader (HDR).

Therapeutic radiologic physics tasks related to standard low dose brachytherapy.

II. CONDITIONS:PERSONNEL

Before an individual may perform physics tasks covered by this authorization the individual must also be a RAM radiation worker under an authorized user approved to use the radiation source.

The AMP shall assure AMP tasks covered by this authorization are performed by an AMP or, for tasks that may be and are delegated to another individual, the task is performed under the supervision of an AMP by an individual who are qualified and competent to perform the task.

SURVEY

Prior to releasing a patient who has received a treatment using an HDR, a documented survey of the patient and HDR shall be performed to confirm the source(s) have been removed from the patient and have returned to the safe shielded position. Minimum documentation shall include the date and results of the survey, the survey instrument used and the name of the radiation worker who performed the survey.

Prior to first use of an HDR and after each source replacement or service of an HDR, a survey of the HDR shall be performed. The survey shall ensure the maximum dose rate and the average radiation levels from the surface of the main source safe with the source(s) in the shielded position do not exceed the levels stated in the HDR's Sealed Source and Device Registry.

INSTRUMENTATION

A calibrated (cpm or mR/hr) and operable survey meter shall be readily available each time the HDR is operated.

A calibrated dosimetry system shall be available and used to perform source output or activity measurements. The system shall meet the calibration requirements listed in OAC 3701:1-58-60.

PERSONNEL MONITORING

All personnel who use radioactive material other than betas with energies less than or equal to 250 keV (e.g., H-3, C-14, S-35, P-33) shall wear a whole body and ring dosimeter.

All personnel involved with the use of an HDR shall wear a whole body dosimeter. Though it is unlikely the individual may receive a significant dose during normal operation of the HDR, the dosimeter is required to ensure proper dosimetry in case of an abnormal event (a.k.a. emergency).

All personnel monitors (e.g., whole body and ring badges) shall be picked up from the Radiation Safety Office during the first three working days of the month for the month of use and returned to the Radiation Safety Office by the 10th of the month after the month of use (e.g., assigned April dosimeters must be picked up the first 3 days of April and returned by the 10th of May).

WASTE PROCEDURES

The AMP shall ensure HDR sources that have been removed from an HDR are returned to the Radiation Safety Office, with appropriate paperwork in a timely manner. "Timely manner" means 5 business days after the HDR source is removed from the HDR.

TRAINING

All HDR training records shall include the topic(s) covered, the date of training, the name(s) of the attendee(s) and the name(s) of the individual(s) who provided the training. A copy of the records shall be maintained with the HDR records and a copy provided to the Radiation Safety Office.

Prior to acting as an AMP for a specific HDR unit, the AMP must complete vendor provided or vendor equivalent training and provide a copy of the training documentation to the Radiation Safety Office.

All RAM radiation workers under this authorization shall be provided procedure specific training by the AMP prior to the individual performing any AMP task. Procedure specific training must provide the AMP assurance the individual can competently perform any AMP delegated task.

The AMP shall conduct HDR operation training for each individual who may operate an HDR. The training shall be performed prior to an individual being added to the list of approved operators and at least annual thereafter.

The AMP shall conduct HDR abnormal event (a.k.a. emergency) training and drills for each individual to be present during HDR treatments. The training and drill shall be performed prior to an individual being added to the list of approved participants and at least annually thereafter

The exchange of HDR sources shall be performed under the direct supervision of an AMP and by individual specifically licensed by the NRC or an agreement state to perform the exchange. "Direct supervision" means within distance of the normal human voice. "Individual specifically licensed by the NRC or an agreement state" means an individual for which a copy of a current license has been obtained and a copy of the license provided to and approved by the Radiation Safety Officer.

SPECIAL SAFETY PRECAUTION

Only individuals approved in writing by the authorized user, the RSO, or an authorized medical physicist shall be present in the treatment room or control room area during HDR procedures.

In accordance with OAC 3701:1-58-65(C), the AMP shall review each spot-check not performed personally by an AMP within 15 days and shall notify the University of Cincinnati as soon as possible in writing of the results of each spot-check. In regards to the written notification this shall mean requiring individuals who perform spot-check to immediately notify the AMP each time a spot-check indicates a deficiency and the AMP subsequently immediately notifying the Radiation Safety Office of the deficiency using the incident reporting procedures outlined in the AU manual. The written report shall include any immediate action taken, follow-up action taken and when the spot-check deficiency was corrected.

The AMP shall assure emergency response equipment for each HDR is located near each HDR treatment room and is readily available during each treatment using the HDR.

OTHER

A service log shall be maintained for each HDR that includes a record of services such as the installation, maintenance, adjustments and repairs of the HDR. The record shall include the date of service, a description of the service and the name(s) of individual(s) who performed the service.

The authorized user and an authorized medical physicist shall be physically present during the initiation of each treatment involving use of an HDR. The authorized medical physicist and either the authorized user or an "HDR trained" physician working under the supervision of the authorized user shall be physically present until completion of treatments using an HDR.

Prior to first use of a Sr-90 source for ophthalmic treatment, the source must be calibrated in accordance with the rules listed in OAC 3701:1-58-48.

The AMP is responsible for ensuring written procedures for all AMP tasks delegated to supervised individuals are readily available to supervised individuals and that the written procedures are in sufficient detail for supervised individuals to perform the tasks proficiently.

Only an AMP authorized by the Radiation Safety Committee to be an AMP for Sr-90 sources for ophthalmic treatments may perform decay calculations of a Sr-90 source to be used for an ophthalmic treatment.

Only an AMP authorized by the Radiation Safety Committee to be an AMP for an HDR may perform HDR unit full calibration measurements or perform decay calculations of the HDR source.

III APPROVALS:

Initial RSC Full Approval: 08/17/05

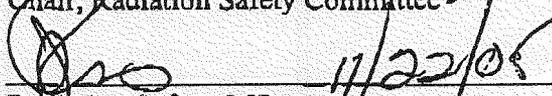
Last Renewal Review:

N/A this Amd.

Full committee on:

08/17/05


Chair, Radiation Safety Committee 4/28/05


Radiation Safety Officer 11/22/05

Mail to: ML/Dept 0757 Radiation Oncology

The University Hospital

Health Alliance

February 25, 2006

Ohio Department of Health
246 North High Street
c/o Bureau of Radiation Protection 7th Floor, Building 35
Post Office Box 118
Columbus, Ohio 43216-0018

Re: Application for Broad Scope Medical License

Dear Director,

The University Hospital would like to apply for a medical broad scope license. The University Hospital currently operates under license # 02110310010 managed by the University of Cincinnati. The University of Cincinnati has agreed to provide an amendment to their license and a separation agreement between The University Hospital and the University of Cincinnati to clearly delineate the changes and transfer of materials and equipment in support of this license application.

In accordance with Ohio Administrative Code 3701:1-38-02, Fees for inspection, application, amendment, and renewal of radioactive material sources of radiation, a check for \$19,954.30 is enclosed with this application.

License Application Fee	\$ 8,732.00
Inspection Fee	\$10,227.00
Subtotal	\$18,959.00
Surcharge (5.25%)	<u>\$ 995.30</u>
Total	\$19,954.30

If you have any question or need any additional information to process this license application, please contact Arthur R. Morton at (513) 584-1143 or mortonar@healthall.com.

Sincerely,

Pam Vansant
Vice President, Administration
The University Hospital

APPLICATION FOR A LICENSE FOR RADIOACTIVE MATERIAL OHIO DEPARTMENT OF HEALTH



(Please read accompanying instructions before completing this form.)

1. THIS IS AN APPLICATION FOR: <input checked="" type="checkbox"/> INITIAL LICENSE <input type="checkbox"/> AMENDMENT TO LICENSE NO.: <input type="checkbox"/> RENEWAL OF LICENSE NO.: DOCKET NUMBER (assigned by Bureau): 2. NAME OF LICENSEE (Person or firm proposing to conduct activities described below) University Hospital, Health 3. ADDRESS OF LICENSEE (Mailing address and/or other location where located) University Hospital, 234 Goodman Street Cincinnati, OH 45219-2316		3. LOCATION(S) OF USE a. Address: University Hospital, 234 Goodman Street Cincinnati, OH 45219-2316 b. Address: Barrett Cancer Center, 234 Goodman Street Cincinnati, OH 45219-0772 4. LICENSEE CONTACT (If non-employee, so indicate) NAME: Arthur Ray Morton, RSO TELEPHONE NUMBER (Area Code): (513) 584-1143 FACSIMILE NUMBER (Area Code): (513) 584-3078	
If more detail is needed for items 5 through 11, submit the information on 8-1/2 by 11" plain paper. Read the instructions for the type and scope of information requested.			
5. RADIOACTIVE MATERIAL a. ELEMENT AND MASS NUMBER (e.g., Hydrogen-3) Attachment 1 b. PHYSICAL / CHEMICAL FORM (e.g., sealed source, any, metal) Attachment 1 c. MAXIMUM ACTIVITY (in SI units) Attachment 1		6. PURPOSE FOR WHICH MATERIAL WILL BE USED: Attachment 1	
7. RADIATION SAFETY OFFICER (includes training and experience) Arthur Ray Morton		8. TRAINING Attachment 2	
10. RADIATION PROTECTION PROGRAM (attach documentation)			
a. Personnel Monitoring Attachment 4		b. Instrumentation Attachment 5	
c. Procedures Attachment 6		d. Other	
11. WASTE MANAGEMENT (list methods to be used by name or reference): Attachment 7			
12. DOMESTIC / FOREIGN CORPORATION (include state) 9 DOMESTIC CORPORATION 9 FOREIGN CORPORATION Non-profit Corporation			
a. IF FOREIGN CORPORATION, show DESIGNATED AGENT: Address: City: State: Zip Code:		Name: Phone No.	
13. APPLICATION CERTIFICATION			
THE APPLICANT STATED HEREIN, OR ANY OFFICIAL EXECUTING THIS APPLICATION ON BEHALF OF THAT APPLICANT, CERTIFIES THAT:			
a. This application is prepared in conformity with Chapter 3748 of the Ohio Revised Code and rules adopted thereunder.			
b. All information contained herein, including supplements and attachments, are true and correct to the best of our knowledge and belief.			
Printed Name of Applicant/Official Executing this Application: Pam Vansant		SIGNATURE	DATE
Title of Applicant/Official Executing this Application: Vice President, Administration		SIGNATURE	DATE
14. REDUCED FEES CERTIFICATION (See instructions for applicability, and attach documentation as appropriate)			
THE APPLICANT STATED HEREIN, OR ANY OFFICIAL EXECUTING THIS APPLICATION ON BEHALF OF THAT APPLICANT, CERTIFIES THAT:			
a. This License Reduced Fees Certification is in conformity with Chapter 3748 of the Revised Code and rules adopted thereunder.			
b. All information contained herein, including supplements and attachments are true and correct to the best of our knowledge and belief.			
c. The qualification for reduced fees is based on OAC 3701:1-33-02, paragraph (J), subparagraph () (attach documentation)			
Printed Name of Applicant/Official Executing this Certification		SIGNATURE	DATE
Title of Applicant/Official Executing this Certification:		SIGNATURE	DATE
15. Tax ID Number (if no tax ID number, then SSN - needed if refunds or other fee adjustments are necessary): 31-1435820			
Make the payment instrument payable to: TREASURER, STATE OF OHIO Ohio Department of Health P.O. Box 15278 Accounts Receivable Unit Columbus, Ohio 43215		Return application to address listed below: Ohio Department of Health 246 North High Street Bureau of Radiation Protection/7 th Floor, 35 Bldg. PO Box 118 Columbus, Ohio 43216-0118	

<p>The University Hospital </p>		<p>AUTHORIZATION TO USE RADIOACTIVE MATERIALS</p>		<p>Date: May 1, 2009 Expires: June 17, 2011</p>																			
<p>Principal User Dr. William Barrett, M.D. (1,2,3,4) Radiologist, Radiation Oncology</p> <p>Phone: (513) 584-8216 Fax: (513) 584-4007 Email: William.Barrett@Healthall.com</p>			<p>Radiation Safety Officer Arthur R. Morton Medical Physicist, Radiology</p> <p>Phone: (513) 584-1143 Fax: (513) 584-3078 Email: Arthur.Morton@Healthall.com</p>																				
<p>Authorized Users</p> <p>Dr. John Breneman (1,2,4) Dr. David Grisell (1,2,3,4) Dr. Jessica Guarnaschelli (1,2,3) Dr. Ruth Lavigne (1,2,3,4) Dr. Kevin Redmond, M.D. (1,2,3,4)</p> <p>Mike Davis, AMP (HDR) Howard Elson, AMP (HDR) Bill Kassing, AMP (HDR) Nitin Kumar</p> <p>(1) Linear Accelerator OAC Chapter 3701:1-66-15 (2) Manual Brachytherapy OAC Chapter 3701:1-58-53 (3) Remote Afterloader Unit OAC Chapter 3701:1-58-55 (4) Other medical uses of radioactive material OAC Chapter 3701:1-58-72</p>			<p>Supervised Users</p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; vertical-align: top;"> <p>Dr. James Augsburg Dr. Brian Blonigen Sarah Brooks Christel DeChristopher Holly Duffy Jennifer Garbee Dr. Yana Goldberg Rashaunda Head Dr. Kara Hentzfeld Kristin Meyer</p> </td> <td style="width:50%; vertical-align: top;"> <p>Rick Meyung Brandi Miller Dr. Shannon Offerman Dr. Luke Pater Kathy Potter April Reisinger Dr. Tommy Skidmore Susan Thompson Dr. Ronald Warnick Shameka Williams</p> </td> </tr> </table>			<p>Dr. James Augsburg Dr. Brian Blonigen Sarah Brooks Christel DeChristopher Holly Duffy Jennifer Garbee Dr. Yana Goldberg Rashaunda Head Dr. Kara Hentzfeld Kristin Meyer</p>	<p>Rick Meyung Brandi Miller Dr. Shannon Offerman Dr. Luke Pater Kathy Potter April Reisinger Dr. Tommy Skidmore Susan Thompson Dr. Ronald Warnick Shameka Williams</p>																
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<p>Unsealed Sources (maximum possession activity)</p> <p>6E Phosphorous-32 100 mCi</p>			<p>Sealed Sources (maximum possession activity)</p> <table style="width:100%; border: none;"> <tr> <td style="width:15%;">6F</td> <td style="width:55%;">Strontium-90</td> <td style="width:30%;">500 mCi</td> </tr> <tr> <td>6F</td> <td>Palladium-103</td> <td>1.0 Ci</td> </tr> <tr> <td>6F</td> <td>Iodine-125</td> <td>2.0 Ci</td> </tr> <tr> <td>6F</td> <td>Cesium-137</td> <td>2.0 Ci</td> </tr> <tr> <td>6F</td> <td>Iridium-192</td> <td>2.0 Ci</td> </tr> <tr> <td>6S</td> <td>Iridium-192</td> <td>21.0 Ci *</td> </tr> </table> <p style="text-align: right; margin-top: 20px;">* Not to exceed 13.0 Ci per source</p>			6F	Strontium-90	500 mCi	6F	Palladium-103	1.0 Ci	6F	Iodine-125	2.0 Ci	6F	Cesium-137	2.0 Ci	6F	Iridium-192	2.0 Ci	6S	Iridium-192	21.0 Ci *
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6S	Iridium-192	21.0 Ci *																					
<p>Radioactive Material Use Areas</p> <p>Linear Accelerators: Barrett Cancer Center: 1029, 1031, 1033, 1034 HDR Remote Afterloader: Barrett Cancer Center: 1033 Prostate Seed Implants: Barrett Cancer Center: 1033, 1041, 1043</p>																							
<p>Radioactive Material Storage Areas</p> <p>Barrett Cancer Center: 1033</p>																							

Conditions of Use

1. Dose Calibrator. Checking and testing of the dose calibrator will be performed in accordance with the model procedure in NRC Regulatory Guide 10.8, Appendix C.
2. Ordering
 - a. The Health Physics Staff shall be notified prior to ordering any radioisotopes.
 - b. Ordering of isotopes shall be limited to those radioisotopes and activities specified in this authorization and in accordance with the model procedures in NRC Regulatory Guide 10.8, Appendix K.
3. Package Receipt
 - a. Packages must be monitored for external or surface contamination within 3 hours of receipt during duty hours or within 3 hours of arrival of the staff if delivered after duty hours.
 - b. The Health Physics Staff will be notified immediately if external or surface contamination is detected, the measured exposure rate exceeds the Transport Index or the contents of the package do not match the order or the packing slip.
4. Preparation and Administration of Radiopharmaceuticals will be drawn and administered in accordance with the Quality Management Program.
5. If unsealed radiopharmaceuticals are used in the Radioactive Material Use areas or Radioactive Material Storage areas:
 - a. Radiation Oncology personnel will perform and document the daily monitoring, surveys and evaluations.
 - b. The Radiation Safety office will perform periodic radiation protection surveys in accordance with NUREG 1556, Volume 11, Appendix S.
6. Shipping of radioactive materials is not authorized.
7. Temporary Supervised Users
 - a. Radiology residents are temporarily authorized to work as Supervised Users without being specifically listed on the front of this form for a period not to exceed six consecutive months.
 - b. Radiology residents are not allowed to work as Supervised Users until they have received the appropriate radiation safety training and are issued the appropriate dosimetry devices for handling radioactive materials.
8. Supervision. The degree of supervision of a Supervised User by an Authorized User or Principal User shall be commensurate with the training and experience of the Supervised User and based on the professional judgment of the Authorized User or Principal User.

Revision Summary

Authorized or Supervised Users

Removed: David Roesener as an Authorized User Physicist and Michell Mierzwa as a Supervised User

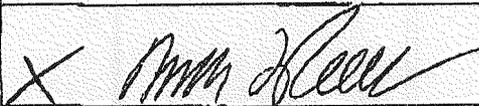
Maximum Radionuclide Activity

Radioactive Material Use Areas

Radioactive Material Storage Areas

Conditions of Use

Acknowledgement of Responsibilities

	
Dr. William Barrett, M.D. Principal User	Arthur R. Morton, RSO Radiation Safety Officer