

## ACCEPTANCE REVIEW MEMO (ARM)

**Licensee:** Bartlett Regional Hospital      **License No.:** 50-17686-01  
**Docket No.:** 030-13158      **Mail Control No.:** 471216  
**Type of Action:** Notify      **Date of Requested Action:** 12-26-06  
**Reviewer Assigned:**      **ARM reviewer(s):** J. Cook

Response	Deficiencies Noted During Acceptance Review
	<input type="checkbox"/> Open ended possession limits. Limit possession. Submit inventory. <input type="checkbox"/> Submit copies of most recent leak test results. <input type="checkbox"/> Add - delete IC license condition. Add IC paragraph in cover letter. <input type="checkbox"/> Split license from cover letter. Add SUNSI marking to license. <input type="checkbox"/> Ask the licensee if they have any type-amount of EPAct Material.

**Reviewer's Initials:** \_\_\_\_\_ **Date:** \_\_\_\_\_

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Unrestricted release Group 2 or >: Transfer memo to FCDB within 10 days.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Decommissioning notification should be completed within 30 days.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Termination request < 90 days from date of expiration
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other)
<input type="checkbox"/> Yes	<input type="checkbox"/> No	TAR needed to complete action.

**Branch Chief's and/or Sr. HP's Initials:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**SUNSI Screening according to RIS 2005-31**

Yes  No **Non-Publicly Available, Sensitive** if any item below is checked

General guidance:

- \_\_\_\_\_ RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule
- \_\_\_\_\_ Exact location of RAM (whether = or > than Category 3 or not)
- \_\_\_\_\_ Design of structure and/or equipment (site specific)
- \_\_\_\_\_ Information on nearby facilities
- \_\_\_\_\_ Detailed design drawings and/or performance information
- \_\_\_\_\_ Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

- \_\_\_\_\_ RAM quantities and inventory
- \_\_\_\_\_ Manufacturer's name and model number of sealed sources & devices
- \_\_\_\_\_ Site drawings with exact location of RAM, description of facility
- \_\_\_\_\_ RAM security program information (locks, alarms, etc.)
- \_\_\_\_\_ Emergency Plan specifics (routes to/from RAM, response to security events)
- \_\_\_\_\_ Vulnerability/security assessment/accident-safety analysis/risk assess
- \_\_\_\_\_ Mailing lists related to security response

**Branch Chief's and/or Sr. HP's Initials:** JAC **Date:** 1/11/07

## Pre-Licensing Screening

### Applicant Information:

Control No. 471216

Name: Bartlett Regional Hospital	Type of Request: Amend Program Code(s):	
Location: AK	License No.: 50-17686-01	Docket No.: 030-13158

### STEP 1—Radioactive Materials and Quantities Requested:

<b>Instructions for Step 1: Complete Step 1 for all applications.</b> If all your responses in Step 1 are "No" then do not complete Step 2 (Screening Criteria). Sign and date the completed step-sheet and add it as the sensitive and non-publicly available OAR in ADAMS. If a "yes" response is indicated for any item in Step 1, also complete Step 2. If the type of use is subject to a Security Order or the requirements for increased controls, complete Step 3 (Item A or Item B) without delay.		Yes or No
A.	The request is from a new applicant.	N
B.	NUREG-1556, Volume 20, Section 4.9 indicates a licensing site visit is needed for the requested type of use, e.g., (1) Type A broad scope license, (2) panoramic irradiator containing > 10000 curies, (3) manufacturers or distributors using unsealed radioactive material or significant quantities of sealed material, (4) radioactive waste brokers, (5) radioactive waste incinerators, (6) commercial nuclear laundries, and (7) any other application that in the judgement of the reviewer and cognizant supervisor involves complex technical issues, complex safety questions, or unprecedented issues that warrant a site visit.	N
C.	The applicant requested certain radionuclides and quantities that equal or exceed the Risk Significant Quantity (TBq) values in the table, below, that have been "highlighted" by the reviewer	N

### Table of Risk Significant Quantities

(Category 2 Quantities, IAEA Safety Guide No. RS-G-1.9, Categorization of Radioactive Sources, August 2005)

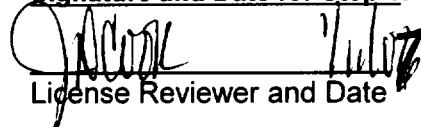
Radionuclide	Risk Significant Quantity (TBq <sup>1</sup> )	Risk Significant Quantity (Ci <sup>1</sup> )	Radionuclide	Risk Significant Quantity (TBq <sup>1</sup> )	Risk Significant Quantity (Ci <sup>1</sup> )
Am-241	0.6	16	Pm-147	400	11,000
Am-241/Be	0.6	16	Pu-238	0.6	16
Cf-252	0.2	5.4	Pu-239/Be	0.6	16
Cm-244	0.5	14	Ra-226 <sup>2</sup>	0.4	11
Co-60	0.3	8.1	Se-75	2	54
Cs-137	1	27	Sr-90 (Y-90)	10	270
Gd-153	10	270	Tm-170	200	5,400
Ir-192	0.8	22	Yb-169	3	81

<sup>1</sup> The primary values are TBq. The curie (Ci) values are for informational purposes only.

<sup>2</sup> The Atomic Energy Act, as amended by the Energy Policy Act of 2005, authorizes NRC to regulate Ra-226 and NRC is in the process of amending its regulations for discrete sources of Ra-226.

Calculations of the Total Activity or the Unity Rule are attached to document whether or not the screening criteria in Step 2 were also completed to evaluate the application. <b>NOTE—If an amendment of an existing license is being requested, the calculations will include the previously authorized quantities for the radionuclide(s).</b>	Yes, No, or Not Applicable (NA)
Total Activity—multiple activities are requested for a single radionuclide and the sum of the activities equals or exceeds the quantity of concern for the radionuclide	
Unity Rule—multiple radionuclides are requested and the sum of the ratios equals or exceeds unity, e.g., [(total activity for radionuclide A) + (risk significant quantity for radionuclide A)] + [(total activity for radionuclide B) + (risk significant quantity for radionuclide B)] ≥ 1.0.	

### Signature and Date for Step 1:

  
License Reviewer and Date

# Bartlett Regional Hospital

3260 Hospital Drive • Juneau, Alaska 99801 • Telephone 907-796-8900

RECEIVED

JAN 03 2007

DNMS

26 December 2006

United States Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-4005

**SUBJECT: LICENSE AMENDMENT**

Please process the enclose material on Dr. Mark Fisher for adding him as an authorized user on our license # 50-17686-01 for Bartlett Regional Hospital, 3260 Hospital Drive, Juneau, Alaska, 99801. He is currently working under License #ORE-90270 State of Oregon, Oregon State Health Division, Department of Human Services. I have enclosed a copy of that license and his Oregon Permit to Practice Medicine. He needs to be certified for 10 CFR 35.100 and 35.200 and work as an authorized user in accordance with 10 CFR 35.13 and 35.14.

Thank you for you cooperation.

Sincerely,

GORDON T. BLAIR, MD.  
Radiation Safety Officer

STATE OF OREGON  
 OREGON STATE HEALTH DIVISION  
 DEPARTMENT OF HUMAN SERVICES  
**RADIOACTIVE MATERIALS LICENSE**

Page 1 of 5 Pages  
 License No. ORE-90270  
 Amendment Number 89

Pursuant to the Radiation Control Act and the Oregon Rules for the Control of Radiation, and in reliance on statements and representations heretofore made by the Licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders now or hereafter in effect of the State Health Division and to any and all conditions specified below.

In accordance with letter dated September 27, 2006, Oregon Radioactive Materials License Number ORE-90270 is amended to read as follows:

Licensee <b>Sacred Heart Medical Center</b>		3. License Number <b>ORE-90270</b>
1. Name	4. Expiration Date <b>December 31, 2007</b>	
2. Address <b>1255 Hilyard Street                  Eugene, Oregon 97401</b>	3. Reference Number <b>Medical Diagnostic/Therapy-QMP</b>	
6. Radioactive materials (element and mass number)		
7. Chemical and/or physical form		
8. Maximum quantity licensee may possess at any one time		
A.	Any radioactive material identified in OAR 333-116-0300	A. Any radiopharmaceutical identified in OAR 333-116-0300
B.	Any radioactive material identified in OAR 333-116-0320	B. Any radiopharmaceutical identified in OAR 333-116-0320
C.	Any radioactive material identified in OAR 333-116-0360	C. Any radiopharmaceutical identified in OAR 333-116-0360
D.	Any radioactive material identified in OAR 333-116-0420	D. Any brachytherapy source identified in OAR 333-116-0420
E.	Gadolinium-153	E. Sealed sources (North American Scientific Model 3601 or DuPont Merck Model NES-8412)
F.	Cesium-137	F. Sealed source (Isotope Products Laboratories Model HEG-137)
G.	Depleted uranium	G. Shielding material
H.	Iodine-131	H. I-131-6-B-iodomethylnorcholesterol (Univ. of Michigan NP-59)
I.	Fluorine-18	I. Fluoro-2-deoxy-D-glucose
9. Authorized use.		
A. Medical use as described in OAR 333-116-0300.		

**RADIOACTIVE MATERIALS LICENSE**

Continued from Page 1

9. Authorized use. (cont.)
- B. Medical use as described in OAR 333-116-0320.
  - C. Medical use as described in OAR 333-116-0360.
  - D. Medical use as described in OAR 333-116-0420.
  - E. To be used, two sources per camera, in ADAC Laboratories SPECT or MCD/AC camera systems for patient transmission determination.
  - F. To be used in ADAC Laboratories MCD/AC camera system for attenuation corrections in FDG patient studies.
  - G. To be used as shielding in MCD/AC camera system.
  - H. To be used for adrenal gland imaging in accordance with License Condition 20 below.
  - I. Medical use as described in OAR 333-116-0320 for PET studies.

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**CONDITIONS**

- 10. Licensed radioactive material shall be used only at the licensee's facilities located at 1255 Hilyard Street, Eugene, Oregon 97401.
- 11. This license is subject to and void without an annual validation certificate. Insofar as the licensee has submitted the proper fee prior to the expiration of a validation certificate, such existing validation certificate shall not expire until the issuance of a new validation certificate for the then current fiscal year.
- 12. The Radiation Safety Officer for the activities authorized by this license is Mathews B. Fish, M.D.
- 13. A. Licensed radioactive material listed in Item 6 above is authorized for use by, or under the supervision of, the following individuals for the materials and uses indicated:

<u>NAME</u>	<u>USE</u>
Charles McGlade, M.D.	Subitems A and B
Charles E. Deaton, M.D.	Subitems A and B
Lee G. Michels, M.D.	Subitems A and B
Cathryn L. Chicola, M.D.	Subitems A and B
L. Paul Wilson, M.D.	Subitems A and B
Tinko Zlatev, M.D.	Subitems A and B

**RADIOACTIVE MATERIALS LICENSE**

Continued from Page 2

**CONDITIONS (cont.)**

- (13.) A. **NAME** **USE**
- |                                  |                                     |
|----------------------------------|-------------------------------------|
| Robert Gunderman, M.D.           | Subitems A and B                    |
| James D. Kippen, M.D.            | Subitems A and B                    |
| Bernardo Isuani, M.D.            | Subitems A and B                    |
| Philip J. Keizer, M.D.           | Subitems A and B                    |
| John D. Gorman, M.D.             | Subitems A and B                    |
| David W. Tsai, M.D.              | Subitems A and B                    |
| Stephen G. Thiede, M.D.          | Subitems A and B                    |
| John D. Grimme, M.D.             | Subitems A and B                    |
| Akshay S. Gupta, M.D.            | Subitems A and B                    |
| Stephanie Telesetsky Young, M.D. | Subitems A and B                    |
| Matthew John Thomson, M.D.       | Subitems A and B                    |
| Michael S. Bullock, M.D.         | Subitems C and D                    |
| David Fryefield, M.D.            | Subitems C, D and I                 |
| Julie B. Gemmell, M.D.           | Subitem D                           |
| Richard C. Padgett, M.D.         | Subitems E, F and G                 |
| Gregory D. Kienzle, M.D.         | Subitems A, B, E through G and I    |
| Jon Eckstrom, M.D.               | Subitems A, B, E through G and I    |
| Rodger W. Shaver, M.D.           | Subitems A, B, C, E through G and I |
| Brent D. Kehn, M.D.              | Subitems A, B, C and E through I    |
| Mathews B. Fish, M.D.            | Subitems A, B, C and E through I    |
| Mark F. Fisher, M.D.             | Subitems A, B, C and E through I    |
- B. Medical use of radioactive material as defined in OAR 333-116-0360, with the exception of iodine-131 for treatment of hyperthyroidism and thyroid carcinoma may also be used by Julie B. Gemmell, M.D.
- C. Medical use of radioactive material as defined in OAR 333-116-0320, limited to cardiovascular clinical studies, may also be used by Richard C. Padgett, M.D. or David Saenger, M.D.
14. A. Notwithstanding the requirement to prepare and use drugs in accordance with the package insert, if, in the judgment of the physician as authorized user, departures from the package insert, or use of unapproved drugs, is indicated, the physician may perform such procedures consistent with good professional medical practice as judged by the Oregon Board of Pharmacy, the Oregon Board of Medical Examiners, and/or the Oregon Radiation Advisory Board, as appropriate.

**RADIOACTIVE MATERIALS LICENSE**

Continued from Page 3

**CONDITIONS (cont.)**

- (14.) B. Procedures shall be done by, or under the supervision of, persons whose training meets the requirements in OAR 333-116 and shall be in accordance with safe radiation safety procedures and ALARA in OAR 333-120. Radiopharmaceuticals shall not be used in humans until their pharmaceutical quality and assay have been established. Records documenting radioactive material used described in A. of this condition shall be kept by the licensee until inspection by the Agency.
15. Insofar as the licensee restricts the possession of radioactive material to quantities below the minimum limit specified in Appendix B of 10 CFR 30.35, the licensee is not required to provide financial assurance pursuant to OAR 333-102-0200 (6).
16. The licensee shall comply with requirements in OAR 333-120-0650 (records of internal dose) and OAR 333-102-0305(23) for materials stored for decay pursuant to OAR 333-116-0290.
17. Notwithstanding the requirements of OAR 333-116-0380(1)(h), the licensee is exempt from the bioassay requirement for I-131 therapeutic doses, when administered to patients in capsule form, pursuant to the one-year bioassay assessment results in application dated December 27, 2002.
18. The licensee is authorized to receive, possess and use as reference and calibration sources:
  - A. Sealed sources of radioactive material containing cobalt-57 not to exceed 20 millicuries.
  - B. Sealed sources of radioactive material with a half-life longer than 100 days in individual amounts not to exceed 1 millicurie.
  - C. Technetium-99m in individual amounts not to exceed 50 millicuries.
19. Notwithstanding the requirements in OAR 333-120-0180 and pursuant to the requirements in 333-116-0260, the licensee is authorized to release a patient who has been administered therapeutic radiopharmaceuticals or permanent implants containing radioactive material if the total effective dose equivalent (TEDE) to any other individual is not likely to exceed 500 mrem. Upon release, the licensee shall:
  - (1) Provide the patient with written instructions to maintain doses to other individuals as low as reasonably achievable if the TEDE to any other individual is likely to exceed 5 millisieverts (0.5 rem);
  - (2) Maintain, for three years after the date of release, a record of the basis for authorizing patient release if the TEDE is calculated:
    - A. using the retained activity rather than the activity administered
    - B. using an occupancy factor less than 0.25 at 1 meter
    - C. using the biological or effective half-life, or

STATE OF OREGON  
Public Health Division  
Radiation Protection Services  
Office of Environmental Public Health

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License No. ORE-90270  
Amendment Number 89

**RADIOACTIVE MATERIALS LICENSE**

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CONDITIONS (cont.)

- (19.) (2) D. considering shielding by tissue
- (3) Maintain a record, for three years after the date of release, showing that instructions were provided to a breast-feeding woman if the radiation dose to the infant or child from continued breast-feeding could result in a TEDE exceeding 5 millisieverts (0.5 rem).
20. Except as specifically provided otherwise by this license, the licensee shall conduct its program in accordance with statements, representations and procedures contained in the documents, including any enclosures listed below. The Oregon Rules for the Control of Radiation shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the rules.
- A. Application dated December 27, 2002, signed by Jill Hoggard Greer, RN, Ph.D.
- B. Letter dated February 27, 2003, signed by Mathews B. Fish, M.D.
- C. E-mail correspondence dated May 27, 2003, from Elaine Stec, Nuclear Medicine Manager.
- D. E-mail correspondence dated June 16, 2003, from Elaine Stec, Nuclear Medicine Manager.
- E. E-mail correspondence dated June 30, 2003, from Elaine Stec, Nuclear Medicine Manager.
- F. Letter dated February 9, 2004, signed by Mathews B. Fish, M.D., Medical Director.
- G. Letter dated July 15, 2004, signed by Mathews B. Fish, M.D.
- H. Letters (2) dated December 2, 2004, signed by Mathews B. Fish, M.D., Medical Director, Department of Nuclear Medicine, Radiation Safety Officer.
- I. Letter dated February 22, 2005, signed by Mathews B. Fish, M.D., Radiation Safety Officer.
- J. Letter dated July 20, 2005, signed by Mathews B. Fish, M.D., Radiation Safety Officer.
- K. Letter dated June 28, 2006, signed by Mathews B. Fish, M.D., Radiation Safety Officer.
- L. Invoice dated July 18, 2006, signed by Elaine Stec, CNMT, Nuclear Medicine Manager.
- M. Letter dated September 27, 2006, signed by Mathews B. Fish, M.D., Radiation Safety Officer.

Date: December 8, 2006

**FOR DHS PUBLIC HEALTH DIVISION**

By 

Danny D. Loomis, Manager

Radioactive Materials Licensing Program



JAN 22 2007

DATE

This is to acknowledge the receipt of your letter/application dated 12-26-06, and to inform you that the initial processing, which includes an administrative review, has been performed.

There were no administrative omissions. Your application will be assigned to a 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:

---

The action you requested is normally processed within      days.

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.

Your action has been assigned **Mail Control Number** 471216.  
When calling to inquire about this action, please refer to this mail control number.  
You may call me at 817-860-8103.

Sincerely,



Licensing Assistant

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
:  
: Program Code: 02121  
: Status Code: 0  
: Fee Category: 7C  
: Exp. Date: 20140930  
: Fee Comments:  
: Decom Fin Assur Reqd: N  
: .....

BETWEEN:  
License Fee Management Branch, ARM  
and  
Regional Licensing Sections

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
Applicant/Licensee: BARTLETT REGIONAL HOSPITAL  
Received Date: 20070103  
Docket No: 3013158  
Control No.: 471216  
License No.: 50-17686-01  
Action Type: Amendment

2. FEE ATTACHED  
Amount: \_\_\_\_\_  
Check No.: \_\_\_\_\_

3. COMMENTS

Signed *Bellevue*  
Date 01-09-07

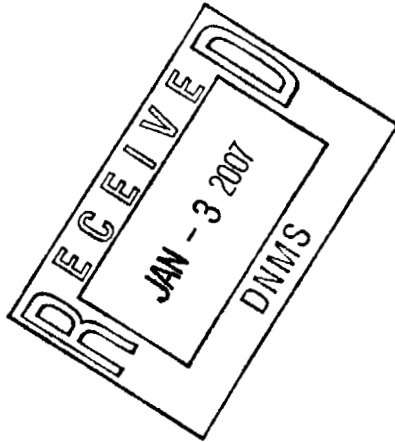
B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_/)

1. Fee Category and Amount: \_\_\_\_\_  
2. Correct Fee Paid. Application may be processed for:  
Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_  
3. OTHER \_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_

# Bartlett Regional Hospital

Diagnostic Imaging 3260 Hospital Drive · Juneau, Alaska 99801



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*50-17686-01  
(030-13158)*

United States Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive  
Suite 400  
Arlington, TX 76011-4005