

## ACCEPTANCE REVIEW MEMO (ARM)

Licensee: Fairbanks Memorial Hospital

License No.: 50-13648-01

Docket No.: 030-03509

Mail Control No.: 471462

Type of Action: Amend

Date of Requested Action: 08-01-07

Reviewer  
Assigned:

ARM reviewer(s): Torres

| Response | Deficiencies Noted During Acceptance Review  |
|----------|--|
|          | <ul style="list-style-type: none"><li>[ ] Open ended possession limits. Limit possession. Submit inventory.</li><li>[ ] Submit copies of most recent leak test results.</li><li>[ ] Add - delete IC license condition. Add IC paragraph in cover letter.</li><li>[ ] Split license from cover letter. Add SUNSI marking to license.</li><li>[ ] Ask the licensee if they have any type-amount of EPAct Material.</li></ul> |
|          |  |

Reviewer's Initials: \_\_\_\_\_

Date: \_\_\_\_\_

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

Date: 8/8/07

## Pre-Licensing Screening

### Applicant Information:

Control No. 461462

|                                   |   |                       |
|-----------------------------------|---|-----------------------|
| Name: Fairbanks Memorial Hospital | Type of Request: /anebd<br>Program Code(s): |                       |
| Location: AK                      | License No.: 50-13648-01                    | Docket No.: 030-03509 |

### 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<br>No |
| A.  | The request is from a new applicant.   | No           |
| 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. | No           |
| 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   | No           |

**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.<br><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<br>Not Applicable<br>(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

C. J. T. 8/8/07



Denali Center  
Fairbanks Memorial Hospital  
*Banner Health System*

August 1, 2007

Nuclear Materials Licensing Branch  
United States Nuclear Regulatory Commission  
Region IV  
Nuclear Materials Safety Branch  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

RECEIVED

AUG 03 2007

DNMS

RE: License 50-13648-01

Dear Sir/Madam:

Please amend our radioactive materials license as follows:

- We wish to eliminate Strontium-90 permitted by 10 CFR 35.400 as listed on our license in item 6 E. This source has been accepted by a licensed vendor for decay and is no longer in our possession. (See attached form)
- We wish to eliminate Samuel McConkey, M.D. as an authorized user for Strontium-90 as listed in Condition 12 on our license.

If you require any additional information, please call.

Sincerely,

Dr. Mark Burton  
Radiation Safety Officer  
Fairbanks Memorial Hospital

No 4 7 1 4 6 2



6765 Langley Drive  
Baton Rouge, Louisiana 70809  
Telephone: 225-751-5893  
Fax: 225-756-0365

Date: July 23, 2007

Janet Hanchett  
Fairbanks Memorial Hospital  
1650 Cowles Street  
Fairbanks, AK 99701

Reference: 2007-268

This is to advise that the Radioactive Material as detailed below has been received by QSA Global, Inc as of 7-17-07 and we have taken possession of this source:

| Manufacturer | Model | S/N  | Isotope | Activity                         |
|--------------|-------|------|---------|----------------------------------|
| ICN          | RA-1  | 1332 | Sr-90   | 50 mci on<br>Date of Manuafcture |

Please retain this record for your files. Should you require further assistance, please contact us at QSA Global, Inc.

Regards,

Rusty Barrett  
Technical Service Manager

AUG - 9 2007

DATE

This is to acknowledge the receipt of your letter/application dated 8-01-07, 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 90 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** 471462.  
When calling to inquire about this action, please refer to this mail control number.  
You may call me at 817-860-8103.

Sincerely,

*Colleen Murnahan*

Licensing Assistant

BETWEEN: : (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
:   
:   
: License Fee Management Branch, ARM : Program Code: 02120  
and : Status Code: 0  
Regional Licensing Sections : Fee Category: 7C  
: Exp. Date: 20111231  
: Fee Comments: CODE 23  
: Decom Fin Assur Req'd: N  
: ::::::::::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
Applicant/Licensee: FAIRBANKS MEMORIAL HOSPITAL  
Received Date: 20070803  
Docket No: 3003509  
Control No.: 471462  
License No.: 50-13648-01  
Action Type: Amendment

2. FEE ATTACHED  
Amount:   
Check No.:       /      

3. COMMENTS  
  
Signed Coleen Munnahan  
Date 8-08-07

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 \_\_\_\_\_

**FedEx**

TRK# 8613 5685 8035  
0215

MON - 06 AUG A1

\*\* 2DAY \*\*

**SE-FWHA**

**DFW**

TX-US

**76011**



Emp# 219064 02AUG07 FAIA

THIS AREA

Label and Stick FedEx US Airbill

to appear on front of box, Airbill,

Business Reply Mail, and any other markings

on box or other packing

to be placed on front of package

Please DO NOT remove "FedEx copy"

15-000000

**FedEx** *US Airbill*  
Express

FedEx Tracking Number 8613 5685 8035

RECIPIENT'S ADDRESS HERE

fedex.com 1800.GoFedEx 1800.463.3339

**1 From** This portion can be removed for Recipient's records

 Date 8/1/01 FedEx Tracking Number 861356858035

 Sender's Name John (111054) Phone \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

**2 Your Internal Billing Reference**
030-03509
**3 To**

 Recipient's Name John (111054) Phone 817-260-9189

Company \_\_\_\_\_

Recipient's Address \_\_\_\_\_

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Room/Suite/Room \_\_\_\_\_

Address \_\_\_\_\_

To request a package be held at a specific FedEx location, print FedEx address here.

 City 111054 State TX ZIP 111054


8613 5685 8035

**Recipient's**
**4a Express Package Service**
*Packages up to 150 lbs.*

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> FedEx Priority Overnight<br>Next business morning ** Friday<br>shipments will be delivered on Monday<br>unless SATURDAY Delivery is selected.  | <input type="checkbox"/> FedEx Standard Overnight<br>Next business afternoon *<br>Saturday Delivery NOT available | <input type="checkbox"/> FedEx First Overnight<br>Earliest next business morning<br>delivery to select locations. **<br>Saturday Delivery NOT available |
| <input checked="" type="checkbox"/> FedEx 2Day<br>Second business day * Thursday<br>shipments will be delivered on Monday<br>unless SATURDAY Delivery is selected.<br>FedEx Envelope rate not available. Minimum charge: One-pound rate | <input type="checkbox"/> FedEx Express Saver<br>Third business day *<br>Saturday Delivery NOT available           |   |

\* To meet locations

**4b Express Freight Service**
*Packages over 150 lbs.*

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> FedEx 1Day Freight*<br>Next business day ** Friday<br>shipments will be delivered on Monday<br>unless SATURDAY Delivery is selected. | <input type="checkbox"/> FedEx 2Day Freight<br>Second business day ** Thursday<br>shipments will be delivered on Monday<br>unless SATURDAY Delivery is selected. | <input type="checkbox"/> FedEx 3Day Freight<br>Third business day **<br>Saturday Delivery NOT available |
|---|--|---|

\* Call for Confirmation

\*\* To meet locations

**5 Packaging**

- |  |  |                                    |                                     |                                |
|--|--|------------------------------------|-------------------------------------|--------------------------------|
| <input type="checkbox"/> FedEx Envelope* | <input type="checkbox"/> FedEx Pak*<br>Includes FedEx Small Pak,<br>FedEx Large Pak, and FedEx Sturdy Pak. | <input type="checkbox"/> FedEx Box | <input type="checkbox"/> FedEx Tube | <input type="checkbox"/> Other |
|--|--|------------------------------------|-------------------------------------|--------------------------------|

\* Declared value limit \$500

**6 Special Handling**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> SATURDAY Delivery<br>Not available for<br>FedEx Standard Overnight,<br>FedEx First Overnight, FedEx Express<br>Saver, or FedEx 3Day Freight. | <input type="checkbox"/> HOLD Weekday<br>at FedEx Location<br>Not available for<br>FedEx First Overnight. | <input type="checkbox"/> HOLD Saturday<br>at FedEx Location<br>Available ONLY for FedEx Priority<br>Overnight and FedEx 2Day<br>to select locations |
|---|---|---|

Does this shipment contain dangerous goods?

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> No   | <input type="checkbox"/> Yes<br>As per attached<br>Shipper's Declaration | <input type="checkbox"/> Yes<br>Shipper's Declaration<br>not required | <input type="checkbox"/> Dry Ice<br>Dry Ice, 9, UN 1845 _____ x _____ kg |
| Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. |  |   | <input type="checkbox"/> Cargo Aircraft Only                             |

**7 Payment Bill to:** Enter FedEx Acct. No. or Credit Card No. below.

- |   |                                    |                                      |                                      |                                     |
|---|------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|
| <input type="checkbox"/> Sender<br>Acct. No. in Section<br>I will be billed | <input type="checkbox"/> Recipient | <input type="checkbox"/> Third Party | <input type="checkbox"/> Credit Card | <input type="checkbox"/> Cash/Check |
|---|------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|

Total Packages

Total Weight

Credit Card Auth.

\*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

**8 Residential Delivery Signature Options**

If you require a signature, check Direct or Indirect.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> No Signature<br>Required<br>Package may be left<br>without obtaining a<br>signature for delivery. | <input type="checkbox"/> Direct Signature<br>Someone at recipient's<br>address may sign for<br>delivery. Fee applies. | <input type="checkbox"/> Indirect Signature<br>If no one is available at<br>recipient's address, someone<br>at a neighboring address may<br>sign for delivery. Fee applies. |
|--|---|---|

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