

## ACCEPTANCE REVIEW MEMO (ARM)

**Licensee:** University of Alaska Fairbanks      **License No.:** 50-02430-07  
**Docket No.:** 030-01179      **Mail Control No.:** 471389  
**Type of Action:** Amend      **Date of Requested Action:** 05-29-07  
**Reviewer Assigned:**      **ARM reviewer(s):** Cook

Response	Deficiencies Noted During Acceptance Review
	[ ] Open ended possession limits. Limit possession. Submit inventory. [ ] Submit copies of most recent leak test results. [ ] Add - delete IC license condition. Add IC paragraph in cover letter. [ ] Split license from cover letter. Add SUNSI marking to license. [ ] Ask the licensee if they have any type-amount of EAct 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 checked="" 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) <i>effective 7/10/07 new RSO</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No	TAR needed to complete action.

**Branch Chief's and/or Sr. HP's Initials:** JAC      **Date:** 6/8/07

**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:** 6/8/07

## Pre-Licensing Screening

### Applicant Information:

Control No. 471389

Name: University of Alaska Fairbanks	Type of Request: Amend Program Code(s):
Location: AK	License No.: 50-02430-07      Docket No.: 030-01179

### 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 4/8/07

*SM*



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**The Graduate School**

202 Eielson Bldg., P.O. Box 757560, Fairbanks, Alaska 99775-7560

May 29, 2007

RECEIVED

JUN 04 2007

DNMS

Nuclear Materials Licensing Section  
U.S. Nuclear Regulatory Commission, Region IV  
611 Ryan Plaza Drive, Suite 300  
Arlington TX 76011

Licensing Section Staff:

This letter is to advise you of changes to the administration of the Radiation Safety Program for our Type B Broad Scope license, # 50-02430-07, docket # 030-01179.

Dr. Susan Henrichs will resign as Radiation Safety Officer, effective July 1, 2007. She will remain with the University of Alaska Fairbanks as an administrator and will be available to assist the new RSO as needed.

Dr. Tracey Martinson of the Environmental Health and Safety and Risk Management (EH&S&RM) department at UAF will be the new Radiation Safety Officer effective July 1, 2007. Mr. Thaddeus Williamson of the Environmental Health and Safety and Risk Management (EH&S&RM) department at UAF will be the Associate RSO, also effective July 1, 2007. Contact information for both Dr. Martinson and Mr. Williamson is:

Mailing address: P.O. Box 758145, Fairbanks, AK 99775-8145  
Physical address: 157 University Park, University of Alaska Fairbanks, Fairbanks, AK  
Fax: 907-474-5489  
Phone (EH&S&RM): 907-474-5413  
Phone (Martinson): 907-474-6771  
E-mail (Martinson): [fntam@uaf.edu](mailto:fntam@uaf.edu)  
Phone (Williamson): 907-474-2762  
E-mail (Williamson): [fntlw1@uaf.edu](mailto:fntlw1@uaf.edu)

Dr. Martinson earned her Ph.D. in Oceanography from the UAF in 1996 and was employed by UAF as a Research Associate from 1996-2003. She was the Safety Coordinator/Chemical Hygiene Officer, Institute of Arctic Biology, UAF, from August 2003-June 2006, and has been an Instructor/Adjunct Faculty member since 2003. Dr. Martinson has served as UAF's Industrial Hygienist and Biosafety Officer since June 2006.

Dr. Martinson will go to the Radiation Safety Academy in September, 2007, to complete the RSO 40-hour course.

**Radiation Safety Academy**

481 N. Frederick Ave, Ste. 302, Gaithersburg, MD 20877

Phone: 301-990-6006 Fax: 301-990-9878

<http://www.RadiationSafetyAcademy.com>

She is a certified Hazmat shipper (DOT and IATA).

Mr. Williamson earned a B.S. with a double major in Mathematics and Statistics in 1997, and did graduate work in Interdisciplinary Statistical Studies (1998). He is a Certified Advanced Hazardous Waste Technician, Certified Hazwoper Site Incident Supervisor, Certified Safety Officer, and Certified Hazmat Shipper (DOT/IATA). He completed the 40-hour RSO training at the Radiation Safety Academy in 2005, and is planning to take the refresher course along with Laser Safety Officer training in September, 2007. His positions held include: Environmental Compliance Officer (EH&S&RM) 2006-current; Safety Officer (EH&S&RM) 2003-2006; Environmental Tech/Hazmat specialist (Nortech, Fairbanks, AK) 2000-2003; RCRA Environmental Technician/Hazmat Facility Fire Warden, CYS Management Services (Fort Wainwright, AK) 1998-2000; Fireman, Sr. Fire Engineer, EMT 3, ACLS Medic (UAF) 1994-1998.

The higher administrators responsible for safety and compliance at UAF include:

Mr. William Krause, Director, EH&S&RM. Dr. Martinson and Mr. Williamson report to Mr. Krause.

[fnwrk1@uaf.edu](mailto:fnwrk1@uaf.edu)

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Ms. Ro Bailey, Vice Chancellor of Administrative Services. Mr. Krause reports to Ms. Bailey.

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**Office:** Room 305 Signers' Hall

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**Mail:** P.O. Box 757900, Fairbanks, AK 99775-7900

Sincerely,



Susan M. Henrichs

Radiation Safety Officer

6-08-07

DATE

This is to acknowledge the receipt of your letter/application dated 5-29-07, 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. *Request for expedited action acknowledged. CM*
- Please provide to this office within 30 days of your receipt of this card:

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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** 471389.  
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:  
License Fee Management Branch, ARM  
and  
Regional Licensing Sections

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
: Program Code: 01110  
: Status Code: 0  
: Fee Category: EX 3L  
: Exp. Date: 20100331  
: Fee Comments: 170.11(A)(4)  
: Decom Fin Assur Req: Y  
: .....

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
Applicant/Licensee: ALASKA, UNIVERSITY OF FAIRBANKS  
Received Date: 20070604  
Docket No: 3001179  
Control No.: 471389  
License No.: 50-02430-07  
Action Type: Amendment

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

3. COMMENTS

Signed Colleen Murnahan  
Date 6-07-07

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 \_\_\_\_\_



*Henrichs*

**University of Alaska Fairbanks**

**Office of the Graduate School**

304 Signers' Hall

P.O. Box 757560

Fairbanks, Alaska

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