

ACCEPTANCE REVIEW MEMO (ARM)

Licensee: Dept of Army - Darnall AMC (Fort Hood, TX) **License No.:** 42-19113-01
Docket No.: 030-16084 **Mail Control No.:** 471281
Type of Action: Amend **Date of Requested Action:** 02-15-07
Reviewer Assigned: ARM reviewer(s): Torres

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 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: RT **Date:** 3-8-07

Pre-Licensing Screening

Applicant Information:

Control No. 471281

Name: Dept of Army - Darnall AMC (Fort Hood, TX)	Type of Request: Amend Program Code(s):
Location: TX	License No.: 42-19113-01 Docket No.: 030-16084

STEP 1—Radioactive Materials and Quantities Requested:

Instructions for Step 1: Complete Step 1 for all applications. 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 ¹)	Risk Significant Quantity (Ci ¹)	Radionuclide	Risk Significant Quantity (TBq ¹)	Risk Significant Quantity (Ci ¹)
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 ²	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

¹ The primary values are TBq. The curie (Ci) values are for informational purposes only.
² 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. NOTE—If an amendment of an existing license is being requested, the calculations will include the previously authorized quantities for the radionuclide(s).	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:

[Signature] 3-8-07

License Reviewer and Date



DEPARTMENT OF THE ARMY
Darnall Army Medical Center
Ft Hood, TX 76544

RECEIVED

MAR - 1 2007

REPLY TO
ATTENTION OF

MCXI-DPM-RP

DNMS

15 February 2007

MEMORANDUM FOR U. S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011-8064

SUBJECT: Amendment Request for US Nuclear Regulatory Commission (NRC) Byproduct Material License Number 42-19113-01 | Change Radiation Safety Officer (RSO)

- PML*
1. Request NRC License No. 42-19113-01 be amended to name William C. House II as the RSO.
 2. Our Radiation Control Committee highly recommends immediate approval. William House is well qualified to assume RSO functions, and his credential packet is provided at the enclosure.
 3. Point of contact is MAJ Peter Lam, MD, (254) 288-8249.

1 Enclosures

PETER T. LAM
Major, Medical Corps
Radiation Safety Officer

CF:

Commander, Great Plains Regional Medical Command, ATTN: MCGP-PM (MAJ Argo)
2410 Stanley Road, Suite 305, Fort Sam Houston, Texas 78234-6230

Headquarters, US Army Medical Command, ATTN: MCHO-CL-W (COL Eng)
2050 Worth Road, Fort Sam Houston, Texas 78234-6000

US Army Center for Health Promotion and Preventive Medicine, ATTN: MCHB-TS-OMH
(LTC Taylor) 5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21210-5403

**RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE
AND PRECEPTOR ATTESTATION
[10 CFR 35.50]**

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008

Name of Proposed Radiation Safety Officer
William C. House II

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	Carl R. Darnall Medical Center	40	Mar 06 - Present
	Landstuhl Regional Medical Center	100	Nov 01 - Mar 06
	AMEDD C&S-Health Physics Course	150	Aug 01 - Nov 01
	AMEDD C&S-Med X-ray Survey Course	40	08 - 19 Apr 02
Radiation protection	Carl R. Darnall Medical Center	40	Mar 06 - Present
	Landstuhl Regional Medical Center	100	Nov 01 - Mar 06
	AMEDD C&S-Health Physics Course	170	Aug 01 - Nov 01
	AMEDD C&S-Med X-ray Survey Course	20	08 - 19 Apr 02
Mathematics pertaining to the use and measurement of radioactivity	Carl R. Darnall Medical Center	25	Mar 06 - Present
	Landstuhl Regional Medical Center	10	Nov 01 - Mar 06
	AMEDD C&S-Health Physics Course	40	Aug 01 - Nov 01
	AMEDD C&S-Med X-ray Survey Course	20	08 - 19 Apr 02
Chemistry of byproduct material for medical use	AMEDD C&S-Health Physics Course	40	Aug - Nov 01
Radiation biology	Carl R. Darnall Medical Center	5	Mar 06 - Present
	Landstuhl Regional Medical Center	5	Nov 01 - Mar 06
	AMEDD C&S-Health Physics Course	10	Aug 01 - Nov 01
	Medical Effects of Ionizing Radiation	40	15-17 Jun 04
Total Hours of Training:		855	

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	Carl R. Darnall Army Medical Center	23-27 Oct 06
Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides	Carl R. Darnall Army Medical Center	26-30 Jun 06
Securing and controlling byproduct material	Carl R. Darnall Army Medical Center	19-23 Jun 06
Using administrative controls to avoid mistakes in administration of byproduct material	Carl R. Darnall Army Medical Center	26-30 Jun 06
Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures	Carl R. Darnall Army Medical Center	26-30 Jun 06
Using emergency procedures to control byproduct material	Carl R. Darnall Army Medical Center	17-21 Jun 06
Disposing of byproduct material	Carl R. Darnall Army Medical Center	10-14 Jul 06
Licensed Material Used (e.g., 35.100, 35.200, etc.)+ <u>35.100, 35.200, 35.300, 31.11</u> _____ _____ _____	Carl R. Darnall Army Medical Center	10-14 Jul 06

* 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).

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 Peter Lam	License/Permit Number listing supervising individual as a Radiation Safety Officer <p style="text-align: center; font-size: 1.2em;">42-19113-01</p>
This license authorizes the following medical uses:	
<input checked="" type="checkbox"/> 35.100 <input checked="" type="checkbox"/> 35.200 <input checked="" type="checkbox"/> 35.300 <input type="checkbox"/> 35.400	<input type="checkbox"/> 35.600 (remote afterloader) <input type="checkbox"/> 35.600 (teletherapy)
<input checked="" type="checkbox"/> 35.500 <input type="checkbox"/> 35.600 (gamma stereotactic radiosurgery)	<input type="checkbox"/> 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	Peter Lam	02 -06 Oct 06
Radiation safety, regulatory issues, and emergency procedures for 35.300 uses	Peter Lam	02-06 Oct 06
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):		

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 <i>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.)</i>	License/Permit Number listing supervising individual
Peter Lam	42-19113-01

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 William C House II 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

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 _____ 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 William C House II has training in the radiation safety, regulatory issues, and
Name of Proposed Radiation 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:

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

AND

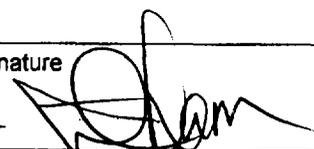
Third Section
Complete for ALL

I attest that William C House II 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 Carl R. Darnall Army Medical Center
Name of Facility

License/Permit Number: 42-19113-01

Name of Preceptor Peter Lam	Signature 	Telephone Number 254-288-8249	Date 15 Feb 07
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MAR - 8 2007

DATE

This is to acknowledge the receipt of your letter/application dated 2-15-07, 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** 471281.
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,

Colleen M. Winkler
Licensing Assistant

(FOR LEMS USE)
INFORMATION FROM LTS

Program Code: 02120
Status Code: 0
Fee Category: 7C 3E
Exp. Date: 20130430
Fee Comments: 3E ADDED 12/2/99--CORRECT
Decom Fin Assur Req'd: N

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
Applicant/Licensee: ARMY, DEPARTMENT OF THE
Received Date: 20070301
Docket No: 3016084
Control No.: 471281
License No.: 42-19113-01
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed _____
Date 3-8-09

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 _____

COMMANDER, CRDAMC
ATTN: MCXI-PMS-RP
Ft Hood, TX 76544-5064

42-19113-01
030-16084



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U.S. Nuclear Regulatory Commission Region IV
611 Ryan Plaza Dr.
Suite 400
Arlington, TX 76011

76011+4003-00 C001

