NRC FORM 374 (7-94) U.S. NUCLEAR REGULATORY COMMISSION PAGE 1 OF 3 PAGES

MATERIALS LICENSE

Amendment No. 2

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with the letter dated **March 18, 1997**
1. Department of the Army U.S. Army Aeromedical Research Laboratory	3. License Number 01-12632-02 is **amended** to read as follows:
2. P.O. Box 620577 Fort Rucker, Alabama 36362-0577	4. Expiration Date: January 31, 2006 (Extended)
	5. Docket or Reference No.: 030-34046 (supercedes 01-12632-01)

6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
A. Cesium 137	A. Sealed source (Beckman Instruments)	A. 130 microcuries
B. Iodine 125	B. Any (RIA Kits)	B. 10 millicuries
C. Carbon 14	C. Any	C. 15 millicuries
D. Hydrogen 3	D. Any (RIA Kits)	D. 50 millicuries

9. Authorized Use:

A. Sealed source for use in calibration of Liquid Scintillation counting system.

B. In-vitro studies (RIA).

C. In-vitro (RIA) and in-vivo animal studies.

D. In-vitro studies (RIA) and in-vivo animal studies.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at the U.S. Aeromedical Research Unit, Building 6901, Fort Rucker, Alabama.

License Number
01-12632-02

Docket or Reference Number
030-34046 (supercedes 01-12632-01)

Amendment No. 2

MATERIALS LICENSE
SUPPLEMENTARY SHEET

CONDITIONS

Continued -

11. The Radiation Protection Officer for the activities authorized by this license is Matthew J. Reardon, MAJ, MC.

12. Licensed material shall be used by, or under the supervision of, Matthew J. Reardon, MAJ, MC

13. Sealed sources containing licensed material shall not be opened.

14. A. (1) The source(s) specified in Item 7 shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

C. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region II, ATTN: Chief, Nuclear Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, GA 30303-3415. The report shall specify the source involved, the test results, and corrective action taken.

D. The licensee is authorized to collect leak test samples for analysis in accordance with the procedures described in the licensee's application dated July 18, 1990, for analysis by U.S. Army Environmental Hygiene Agency, Aberdeen Proving Ground, Maryland. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

15. Experimental animals administered licensed materials or their products shall not be used for human consumption.

16. The licensee shall not use licensed material in or on human beings or in field applications except as provided otherwise by specific condition of this license.

17. The licensee shall maintain records of information important to safe and effective decommissioning at location specified in Condition 10 in accordance with the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number: 01-12632-02

Docket or Reference Number: 030-34046 (supercedes 01-12632-01)

Amendment No. 2

CONDITIONS

Continued -

18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Applications dated:
- May 30, 1985
- July 18, 1990
- January 4, 1996 (renewal)

B. Letters dated:
- July 10, 1986
- December 10, 1993 [facsimile to appoint new RPO]
- August 12, 1994 [new RPO and persons authorized to supervise use]
- October 3, 1994 [facsimile providing additional information on new RPO]
- November 26, 1996 [Change TLD exchange frequency, remove Ass't RSO]
- **March 18, 1997 [procedure for I-125 waste disposal]**

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

HECTOR BERMUDEZ

DATE MAY 16 1997

BY _____

Region II, Division of Nuclear Materials Safety
61 Forsyth Street, S.W. Suite 23T85
Atlanta, Georgia 30303-3415

5/19/97

N:\MLICENSE\01-12632.A02

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03620
Status Code: 0
Fee Category: EX 3M
Exp. Date: 20060131
Fee Comments: _____
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: ARMY, DEPARTMENT OF THE
   Received Date: 970324
   Docket No: 3034046
   Control No.: 257432
   License No.: 01-12632-02
   Action Type: Amendment

2. FEE ATTACHED
   Amount: _____
   Check No.: _____

3. COMMENTS

Signed _____
Date _____

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 _____

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303

MAY 16 1997

INFORMATION FOR NRC MATERIAL LICENSEES

Please find enclosed:
- ___/___ Your NRC material license
- ___/___ Amendment to your NRC material license
- _____ Amendment renewing your NRC material license
- _____ Amendment terminating your NRC material license
- _____ Notice for Radiographer Quality Assurance Approval Program

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify this office (ATTN: Ms. Diane Heim at (404) 562-4723) so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day in the month and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR 19, "Notice, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Not possess and use materials authorized in Items 6, 7, and 8, on the license until:

   a. you have constructed the facilities and obtained the equipment described in the license application and supporting documentation; and

   b. you have notified the U. S. Nuclear Regulatory Commission, Region II, ATTN: Materials Licensing\Inspection Branch, in writing, that activities authorized by the license will be initiated.

   c. you have submitted and certified implementation of a Quality Management Program (10 CFR 35.32) for radiotherapy, or for administering >30 uCi of I-125 or I-131.

3. Notify NRC, in writing, within 30 days:

   a. when an authorized user, Radiation Safety Officer, or Teletherapy Physicist permanently discontinues performance of duties under the license or has a name change; or

   b. when the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).

4. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:

   a. when you decide to terminate all activities involving materials authorized under the license; or

   b. if you decide not to complete the facility, acquire equipment, or possess and use authorized material.

5. Request and obtain a license amendment before you:

   a. receive or use byproduct material for a clinical procedure permitted under Part 35 but not permitted by your license issued pursuant to this part.

   b. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as an authorized user under a license for medical use of byproduct material.

   c. permit anyone, not authorized under 10 CFR 35, Subpart J, to work as a Radiation Safety Officer, Teletherapy Physicist, or Nuclear Pharmacist, under a license for medical use of byproduct material.

   d. order byproduct material in excess of the amount, or a different radionuclide or form, other than authorized on the license:

   e. add or change the areas of use or address (or addresses) of use identified in the license application or on the license; or

   f. change ownership of your organization.

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. Transfer of licensed materials must be consistent with 10 CFR 30.41, 40.51 or 70.42, as applicable. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a Notice of Violation, or imposition of a Civil Penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, (7/95). Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken against those who do not achieve the necessary attention to detail and standard of compliance expected of licensees.

Thank you for your cooperation.

Enclosures:
1. NRC License
2. Category Marked Below for:
   [ ] New licenses: NUREG-1600 (7/95); 19; 20; 30; 40 or 70, as appropriate; 71; 170; NRC Form 3; Agreement State list; and NRC Form 313.
   [ ] New radiography licenses: Parts 34; 150.
   [ ] New medical and teletherapy licenses: Part 35.
   [ ] Amendments and renewals: NRC Form 313.

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(Rev. 3/96)

DEPARTMENT OF THE ARMY
U.S. ARMY AEROMEDICAL RESEARCH LABORATORY
FORT RUCKER, ALABAMA 36362-0577

REPLY TO
ATTENTION OF:

MCMR-UAS-AF

18 March 1997

MEMORANDUM FOR Materials Licence Reviewer, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commision Region II; 101 Marietta Street, N.W.; Suite 2900; Atlanta, GA 30323-0199

SUBJECT: Request Review of USAARL I-125 Waste Disposal SOP

The undersigned submits the attached SOP describing USAARL's proposed I-125 waste disposal method for NRC review and approval action.

Matthew J. Reardon

MATTHEW J. REARDON, MD, MPH
MAJOR, MC
RADIATION PROTECTION OFFICER
334-255-6865

CC: Chairman, RCC

237432

STANDARD OPERATING PROCEDURE (SOP) FOR DISPOSAL OF I-125 LAB WASTE

OBJECTIVE:

This SOP describes USAARL procedures for disposing of I-125 and I-125 contaminated laboratory waste.

PROCEDURE:

1. Lab technician will record estimated amounts, in micro-curies, of I-125 used for assays in a radioisotope usage log. The log will be maintained in the lab area and checked by the RPO or ARPO.
2. Excess I-125 will be emptied down the drain in amounts not to exceed the calculated permissible limits per 10 CFR Part 20. The number of micro-curies of I-125 disposed of in this manner will be anotated, dated, and initialed in the radioisotope usage log. Radioactivity labels will be removed prior to disposing of reagent containers in the I-125 contaminated waste receptacle.
3. All lab material such as test tubes and pipet tips contacting I-125 will be placed in a properly labeled container only for I-125 contaminated waste. This waste will be maintained separately from other types of biohazardous and nonhazardous waste or trash.
4. Each container for I-125 contaminated lab waste will be clearly labeled with an indelible black marking pen with the following information: sequential #, date opened, date closed and put in storage for natural decay in USAARL restricted access room M-18.
5. The I-125 contaminated waste bag in the lab area will be closed before it is full or when I-125 assays will not be performed for a long period of time. Under the direction of the RPO, the waste bag will be placed in leakproof container in room M-18 for storage of ten I-125 half-lives.
6. Entry into the I-125 waste storage room will be annotated on a form with date, time, waste storage bag number, and descriptive note as indicated.
7. The I-125 waste storage containers within M18 will be numbered sequentially and marked as "Class A waste".
8. When storage containers in M18 are three quarters full, they will be checked for leakage and sealed. Upon sealing a container, the date of the last items placed in the container will be marked on the lid.
9. The release date will be calculated by the last date marked on the lid. The estimated time for decay-in-storage is 2.3 years, based on ten I-125 half lifes (60.1 days). Upon reaching the release date radioactivity signs will be removed and the container disposed of as routine trash. These steps will be annotated an I-125 waste disposal and storage log to be maintained in the storage area.
10. All forms and log books for tracking and documenting the disposal of I-125 lab waste will be approved and periodically inspected by the USAARL RPO or ARPO.

REFERENCES:

1. 10 CFR Part 20, Standards for Protection Against Radiation
2. 10 CFR Part 30, Rules of General Applicability t domestic Licensing of Byproduct Material
3. 10 CFR Part 61, Licensing Requirements for Land Disposal of Radioactive Waste