

## MATERIALS LICENSE

Amendment No. 14

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.

302028

## Licensee

1. Indiana University School of Medicine  
Evansville Center for Medical Education
2. 8600 University Blvd.  
Evansville, IN 47712

In accordance with letter dated  
November 4, 1996

3. License Number 13-15734-01 is amended in  
its entirety to read as follows:

4. Expiration Date March 31, 2002

5. Docket or  
Reference No. 030-09673

6. Byproduct, Source, and/or  
Special Nuclear Material7. Chemical and/or Physical  
Form8. Maximum Amount that Licensee  
May Possess at Any One Time  
Under This License

- A. Hydrogen-3
- B. Carbon-14
- C. Iodine-125
- D. Phosphorus-32
- E. Phosphorus-33
- F. Sulfur-35
- G. Chlorine-36
- H. Calcium-45
- I. Sodium-24
- J. Potassium-42
- K. Rubidium-86
- L. Chromium-51

- A. Any
- B. Any
- C. Any
- D. Any
- E. Any
- F. Any
- G. Any
- H. Any
- I. Any
- J. Any
- K. Any
- L. Any

- A. 100 millicuries
- B. 5 millicuries
- C. 15 millicuries
- D. 32 millicuries
- E. 11 millicuries
- F. 5 millicuries
- G. 5 millicuries
- H. 6 millicuries
- I. 6 millicuries
- J. 20 millicuries
- K. 20 millicuries
- L. 45 millicuries

## 9. Authorized Use:

- A. through L. Laboratory research. Teaching and training of students.

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MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

13-15734-01

Docket or Reference Number

030-09673

Amendment No. 14

CONDITIONS

10. Licensed material shall be used only at Health Science Building, 1901 East Walnut Street, Evansville, Indiana and Medical Education Building and the Health Professions Building, 8600 University Boulevard, Evansville, Indiana.
11. The Radiation Safety Officer for the activities authorized by this license is John F. Schaeffer, Ph.D.
12. Licensed 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:
- |                       |                            |
|-----------------------|----------------------------|
| A. G. D. Guthrie      | All                        |
| B. H. H. Rogers       | All                        |
| C. J. F. Schaeffer    | All                        |
| D. Godfrey Tunnicliff | All                        |
| E. B. U. Raess        | All                        |
| F. G. Keith Matheson  | All                        |
| G. Rex D. Stith       | All                        |
| H. James J. Brokaw    | Hydrogen-3, Iodine-125     |
| I. Carla J. Aldrich   | All (excluding iodine-125) |
| J. Ewa Malatynska     | All                        |
13. Licensed material shall not be used in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of the license.
14. The radiation protection officer or his designee shall perform quarterly surveys of areas where licensed material is used and/or stored and records of the results will be maintained for NRC inspection.

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MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

13-15734-01

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15. 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. Application dated July 20, 1991;
  - B. Letter received March 4, 1992; and
  - C. Letters dated March 11, 1992, April 4, 1994, and August 9, 1994.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 12/3/96

By James Mullawer  
Nuclear Materials Licensing Branch, Region III

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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: 20020331  
Fee Comments: 170.11(A)(4)  
Decom Fin Assur Req'd: N

R4

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: INDIANA UNIVERSITY SCHOOL OF MEDIC.  
Received Date: 961107  
Docket No: 3009673  
Control No.: 302028  
License No.: 13-15734-01  
Action Type: Amendment

2. FEE ATTACHED

Amount: \_\_\_\_\_  
Check No.: \_\_\_\_\_

3. COMMENTS

Signed \_\_\_\_\_  
Date 11-8-96

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

1. Fee Category and Amount: EX 3M

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_

Signed \_\_\_\_\_  
Date 11/14/96

NOV 18 1996

RECEIVED BY LFDCB	
Date	NOV. 12, 1996
Log	NOV 7 III
By	SC
Date Completed	11/14/96

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4 November 1996

Nuclear Regulatory Commission  
Materials Licensing Section  
801 Warrenton Road  
Lisle, IL 60532-4351

RE: License # 13-15734-01  
Docket # 030-09673

EVANSVILLE CENTER  
FOR MEDICAL  
EDUCATION

Dear Humans:

This is a request for an amendment to the above license to: (1) include a new faculty person as a responsible user, (2) increase the maximum amount of  $^{36}\text{Cl}$  that the licensee may possess at any one time, and (3) correct the misspelling of a responsible user listed under Item 12 of the above license.

(1) The new person is Dr. Ewa Malatynska, Assistant Professor of Pharmacology and Toxicology. Attached is documentation (See Appendix I) of her experience and her intended use of isotopes. Her resume indicates that she has extensive experience and we have no hesitation in requesting her approval.

To summarize:

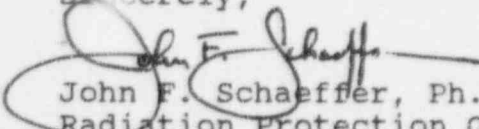
Under Item 12 of our license, add Ewa Malatynska, Ph.D. I request she be approved for all isotopes included in our license.

(2) Under Item 6-8G of our license, we request an increase in maximum amount that licensee may possess at any one time of  $^{36}\text{Cl}$  (Chlorine-36) from 2 millicuries to 5 millicuries to accommodate Professor Malatynska's projected use of this isotope.

(3) Under Item 12G of our license, responsible user Rex D. Smith is listed. It should read Rex D. Stith.

Thank you very much for your time in response to this amendment request.

Sincerely,

  
John F. Schaeffer, Ph.D.  
Radiation Protection Officer

8600 University Boulevard  
Evansville, Indiana  
47712

812-464-1831  
Fax: 812-465-1184

amend14/jfs

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170.11(A)(4)  
FEE EXEMPT

REGION III

NOV 07 1996

302028

Pm: 11-4-96



Appendix 1

A. Radiation Safety Training: Ewa Malatynska, Ph.D.

Type of training	Where trained	Dates of training	on the job		Formal course	
a. Principles and practices of radiation protection.	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Yes Yes Yes		Yes	No No
b. Radioactivity measurement standardization and monitoring	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Yes Yes Yes		Yes	No No
c. Mathematics and calculations basic to the use and measurement of radioactivity	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Yes Yes Yes		Yes	No No
d. Biological effects of radiation	Univ. of Arizona	1986		No	Yes	
e. Area Radiation Protection Officer - Chemistry Dept.				No		No
f. Chemistry Representative Radiation Control Committee				No		No
g. Responsible Investigator for use of radioisotopes.	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Yes Yes Yes		Yes	No No
h. Radiation Protection Officer				No		No

B. Isotope Handling Experience: Ewa Malatynska, Ph.D.

Isotope	Maximum Amount (mCi)	Where Experience Occurred	Duration of Experience	Type of Use
$^{14}\text{C}$	5	The Univ. of Arizona	1986 - 1987	Tracer Work
$^3\text{H}$	20	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Tracer Work " " " "
$^{36}\text{Cl}$	10	The Univ. of Arizona The Ohio State Univ. The Univ. of Arizona	1986 - 1987 1988 - 1989 1990 - 1996	Tracer Work " " " "
$^{86}\text{Rb}$	10			
$^{32}\text{P}$	10	The Univ. of Arizona	1990 - 1996	Tracer Work
$^{35}\text{S}$	25	The Univ. of Arizona	1990 - 1996	Tracer Work
$^{125}\text{I}$	5	The Univ. of Arizona	1990 - 1996	Tracer Work

DEC 04 1996

John F. Schaeffer, Ph.D.  
Radiation Safety Officer  
Indiana University School of Medicine  
Evansville Center for Medical Education  
8600 University Blvd.  
Evansville, IN 47712

Dear Dr. Schaeffer:

Enclosed is Amendment No. 14 to your NRC Material License No. 13-15734-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 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 Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
  - a. When the Radiation Safety Officer 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).

302028



3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
  - a. Change Radiation Safety Officers;
  - b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
  - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
  - d. Change ownership of your organization.
5. 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. 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 Policy and Procedures for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements,

J. Schaeffer

-3-

prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By  
James R. Mullauer, M.H.S.  
Health Physicist  
Nuclear Materials Licensing Branch

License No. 13-15734-01  
Docket No. 030-09673

Enclosure: Amendment No. 14

DOCUMENT NAME: M:\03009673.CL6

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" =  
Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/PIII								
NAME	JRMullauer:brt								
DATE	12/3/96								

OFFICIAL RECORD COPY



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
801 WARRENVILLE ROAD  
LISLE, ILLINOIS 60532-4351  
November 12, 1996

John F. Schaeffer, Ph.D.  
Radiation Safety Officer  
Indiana University School of Medicine  
Evansville Center for Medical Education  
8600 University Boulevard  
Evansville, IN 47712

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE  
(Letter Dated 11/04/96)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License                      ☒ Amendment                      ☐ Renewal  
☐ Termination                      ☐ Auth User (Amendment not required)  
☐ Other \_\_\_\_\_

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

- 1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 302028  
License No. 13-15734-01