NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 18

MATERIALS LICENSE

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.

PC03620 3/6/20

Licensee

1. Northern Michigan University
   Department of Biology
2. 1401 Presque Isle Avenue
   Marquette, MI 49855

In accordance with letter dated March 15, 2007,

3. License number 21-09119-02 is amended in its entirety to read as follows:
4. Expiration date **September 30, 2007**
5. Docket No. 030-08204
   Reference No.

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. Carbon-14	A. Any	A. 20 millicuries
B. Hydrogen-3	B. Any	B. 10 millicuries
C. Phosphorus-32	C. Any	C. 10 millicuries
D. Phosphorus-33	D. Any	D. 10 millicuries
E. Sulfur-35	E. Any	E. 10 millicuries
F. Copper-64	F. Any	F. 20 millicuries
G. Copper-67	G. Any	G. 20 millicuries

9. Authorized Use:

   A. through G. Laboratory research, including student instruction and animal studies, as described in application dated July 18, 1994.

CONDITIONS

10. Licensed material shall be stored only at the licensee's facilities located in Room 2309 New Science Facility (Nuclear Chemistry Lab) as the location where radioactive materials wil be stored and used on the campus of Northern Michigan University. The street address of the New Science Facility is 1401 Presque Isle Avenue 49855, Marquette, Michigan.

11. Licensed material shall be used by, or under the supervision of John E. Rebers, Ph.D., Robert Winn, Ph.D., Lesley Putman, Ph.D., Suzanne Williams, and Donna Becker, Ph.D.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
21-09119-02

Docket or Reference Number
030-08204

Amendment No. 18

12. A. The Radiation Safety Officer for this license is John E. Rebers, Ph.D.

    B. The Assistant Radiation Safety Officer for this license is Donna Becker, Ph.D.

13. Licensed material shall not be used in or on human beings.

14. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.

15. **The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided:**

    A. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate survey meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

    B. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

16. 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 U.S. 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 July 18, 1994 and September 23, 2002; and

    B. Letters dated April 18, 1997, July 7, 2000 (with attachments), and two letters dated September 20, 2002.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date APR 30 2007

By _____
James R. Mullauer, M.H.S.
Materials Licensng Branch
Region III