U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 39

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.

Licensee	In accordance with letter dated November 5, 2009
1. The University of Montana	3. License number 25-01706-03 is amended in its entirety to read as follows:
2. Building 32 Missoula, Montana 59812-9144	4. Expiration date October 31, 2015
	5. Docket No. 030-00872 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. Any byproduct material with Atomic Numbers 1 through 83, except as specified below	A. Any	A. 10 millicuries per radionuclide **and 780 millicuries total**
B. Hydrogen-3	B. Any	B. 750 millicuries
C. Carbon-14	C. Any	C. 100 millicuries
D. Phosphorus-32	D. Any	D. 750 millicuries
E. Sulfur-35	E. Any	E. 750 millicuries
F. Iodine-125	F. Any	F. 50 millicuries

9. Authorized Use:

A. through F. Research and development as defined in 10 CFR 30.4, including animal studies; student instruction and demonstration.

CONDITIONS

10. A. Licensed material shall be stored or used only at the licensee's facilities located at:

(1) The University of Montana-Missoula Campus, Missoula, Montana,
(2) Biological Station on Flathead Lake at Yellow Bay between Bigfork and Polson, Montana,
(3) The University of Montana-Western, 710 South Atlantic Street, Dillon, Montana, and
(4) Fort Missoula Field Research Center (off Post Siding Road), Missoula, Montana.

B. Licensed material identified in Item 6.C. may be used for field experiments based out of the Biological Station on Flathead Lake that do not involve release to the environment in accordance with protocols approved by the Radiation Safety Committee.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
25-01706-03

Docket or Reference Number
030-00872

Amendment No. 39

11. A. Licensed material shall be used by, or under the supervision of, individuals designated **in writing** by the Radiation Safety Committee, Keith Parker, Ph.D., **Chairperson**.

    B. The Radiation Safety Officer for this license is Dan W. Corti.

12. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as specified in the certificate of registration **issued by the U.S. Nuclear Regulatory Commission under** 10 CFR 32.210 **or by an Agreement State**.

    B. Notwithstanding Paragraph A of this Condition, sealed sources and detector cells designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

    C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months **or at other intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State**, prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested **and the test results received**.

    D. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material.

    E. **Sealed sources need not be tested if** they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

    F. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(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 IV, **612 E. Lamar Blvd.**, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.

    G. The licensee is authorized to collect leak test samples for analysis by the licensee. 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.

    H. **Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years**.

13. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
25-01706-03

Docket or Reference Number
030-00872

Amendment No. 39

14. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents the foil temperature from exceeding that specified by the manufacturer and approved by U.S. Nuclear Regulatory Commission.

    B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.

15. Except for maintaining labeling as required by 10 CFR Part 20, or 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device or source-device combination that would alter the description or specifications as indicated in the respective certificate of registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.

16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.

17. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:

    A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and

    B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and

    C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.

18. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

19. The licensee shall conduct a physical inventory every 6 months, **or at other intervals approved by the U.S. Nuclear Regulatory Commission**, to account for all source s and/or devices received and possessed under the license. **Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.**

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

21. This license does not authorize commercial distribution of licensed material.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
25-01706-03

Docket or Reference Number
030-00872

Amendment No. 39

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

23. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.

24. **The licensee shall maintain records of information related to decommissioning as specified in 10 CFR 30.35(g) until this license is terminated by the Commission**.

25. Notwithstanding the requirements of License Condition **26** , the licensee is authorized to make program changes and changes to procedures specifically identified in the application dated May 16, 2005, which were previously approved by the Commission and incorporated into the license, without prior Commission approval, as long as:

    A. The proposed revision is documented, reviewed, and approved by the licensee's Radiation Safety Committee in accordance with established procedures prior to implementation;

    B. The revised program is in accordance with regulatory requirements, will not change license conditions, and will not decrease the effectiveness of the Radiation Safety Program;

    C. The licensee's staff is trained in the revised procedures prior to implementation; and

    D. The licensee's audit program evaluates the effectiveness of the change and its implementation.

26. 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. Application dated May 16, 2005 (ML051570165)
    B. Letter dated September 19, 2006 (ML063130263)
    C. E-mails dated October 26, 2006 and October 27, 2006 (ML063130263)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: July 27, 2010

By: **/RA/**

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