NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 12

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 the letter dated **August 15, 2011**,
1. Lincoln University of Missouri c/o **Tumen Wuliji, Ph.D.**	3. License number 24-16097-01 is amended in its entirety to read as follows:
2. **Radiation Safety Officer** 820 Chestnut Street Jefferson City, MO 65102-0029	4. Expiration date November 30, 2011
	5. Docket No. 030-10534 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. Iodine-125	A. Any	A. 15 millicuries
B. Hydrogen-3	B. Any	B. 20 millicuries
C. Carbon-14	C. Any	C. 1 millicuries
D. Phosphorus-32	D. Any	D. 1 millicurie
E. Cesium-137	E. Sealed sources	E. 130 microcuries
F. Americium-241	F. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.	F. No single source to exceed 10 millicuries. Total activity 10 millicuries.

9. Authorized Use:

A. through D. Research and development as defined in 10 CFR 30.4 and animal studies.

E. To be used for instrument calibration.

F. To be used in Troxler Model 3320/3330 depth moisture gauges for measuring physical properties of materials.

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CONDITIONS

10. A. Licensed material listed in Subitems 6.A. through 6.E. shall be used only at the licensee's facilities located at Chestnut Street, Jefferson City, Missouri.

    B. Licensed material listed in Subitem 6.F. shall be stored at the licensee's facilities located at Chestnut Street, Jefferson City, Missouri and may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

11. A. Licensed material listed in Subitems 6.A. through 6.E. shall be used by, or under the supervision of Steven Meredith, Ph.D.

    B. Licensed material listed in Subitem 6.F. shall be used by, or under the supervision and in the physical presence of, individuals who have successfully completed the device manufacturer's training course and have been designated by the licensee's Radiation Safety Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

12. The Radiation Safety Officer for the activities authorized by this license is **Tumen Wuliji, Ph.D**.

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

14. Licensed material shall not be used in or on human beings or in products distributed to the public.

15. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State. 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. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State prior to the transfer, a sealed source received from another person shall not be put into use until tested.

    C. 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

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D. 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.

E. The licensee is authorized to collect leak test samples for analysis by Troxler Electronic Laboratories, Inc. or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

16. Sealed sources containing licensed material shall not be opened or removed from the gauges by the licensee.

17. The licensee shall conduct a physical inventory every six (6) months to account for all sources and/or devices received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of sources and or devices and the date of the inventory.

18. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport. A minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauge is not under the control and constant surveillance of the licensee are required.

19. The licensee may transport licensed material described in Item 6.F. in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

20. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

21. 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

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background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

22. Survey meters shall be calibrated annually by persons specifically licensed by the Commission or an Agreement State to perform such services.

23. 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 September 18, 2001; and

    B. Letters dated November 14, 2001 and **August 15, 2011**.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date AUG 18 2011

By _____
Cassandra F. Frazier
Materials Licensing Branch
Region III