U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 16

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 June 23, 2009
1. University of Idaho Environmental Health and Safety 2. 1108 West Sixth Street Moscow, Idaho 83844-2030	3. License number 11-27382-01 is amended in its entirety to read as follows: 4. Expiration date October 31, 2011 5. Docket No. 030-32323 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 between Atomic Numbers 3 and 83, inclusive, except as specified below	A. Any, except sealed sources	A. 10 millicuries per radionuclide and 500 millicuries total
B. Any byproduct material between Atomic Numbers 84 and 103, inclusive, except as specified below	B. Any, except sealed sources	B. 1 millicurie per radionuclide and 10 millicuries total
C. Any byproduct material between Atomic Numbers 3 and 103, inclusive, except as specified below	C. Sealed sources	C. 10 millicuries per radionuclide and 500 millicuries total
D. Hydrogen-3	D. Any, except sealed sources	D. 1 curie
E. Carbon-14	E. Any, except sealed sources	E. 300 millicuries
F. Phosphorus-32	F. Any, except sealed sources	F. 450 millicuries
G. Phosphorus-33	G. Any, except sealed sources	G. 100 millicuries
H. Sulfur-35	H. Any, except sealed sources	H. 400 millicuries
I. Calcium-45	I. Any, except sealed sources	I. 100 millicuries
J. Chromium-51	J. Any, except sealed sources	J. 100 millicuries
K. Cadmium-109	K. Any, except sealed sources	K. 50 millicuries

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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
L. Iodine-125	L. Any, except sealed sources	L. 400 millicuries
M. Krypton-85	M. Compressed gas	M. 40 curies
N. Hydrogen-3	N. Foils	N. 1 curie
O. Nickel-63	O. Foils	O. 400 millicuries
P. Cobalt-60	P. Sealed sources	P. 100 millicuries
Q. Cadmium-109	Q. Sealed sources	Q. 100 millicuries
R. Cesium-137	R. Sealed sources	R. 200 millicuries
S. Iron-55	S. Sealed sources	S. 100 millicuries
T. Americium-241	T. Sealed neutron sources	T. 800 millicuries
U. Americium-241	U. Sealed neutron sources	U. 500 millicuries

9. Authorized Use:

A. through M. Academic, research and development as defined in 10 CFR 30.4, calibration of licensee's instruments, and animal studies.

N. and O. To be used for sample analysis in gas chromatography devices.

P. through R. Academic instruction, research and development as defined in 10 CFR 30.4, and to be used in portable gauging devices which have been registered pursuant to 10 CFR 32.210 and distributed in accordance with an NRC or Agreement State specific license to persons specifically licensed by the NRC to receive, possess and use the devices.

S. and T. Academic instruction, research and development as defined in 10 CFR 30.4, and to be used for sample analysis in compatible X-ray fluorescence analyzers that have been registered either with NRC under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with an NRC or Agreement State specific license authorizing distribution to persons specifically authorized by the NRC to receive, possess and use the devices.

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U. To be used in portable gauging devices which have been registered pursuant to 10 CFR 32.210 and distributed in accordance with NRC or Agreement State specific license to persons specifically licensed by the NRC to receive, possess and use the devices.

CONDITIONS

10. A. Licensed material identified in Items 8.A. through 8.U. shall be used at the licensee's facilities as described in Item 3 of application dated May 17, 2001, and located at:

    1) Main Campus, University of Idaho, Moscow, Idaho
    2) Southwest Idaho Research and Extension Center, 29603 University of Idaho Road, Parma, Idaho
    3) Aberdeen Research and Extension Center, one-half mile northwest of Aberdeen on Experiment Station Road, Aberdeen, Idaho
    4) Idaho Falls Research and Extension Center, University Place, 1776 Science Center Drive, Idaho Falls, Idaho
    5) Idaho State University/University of Idaho Center for Higher Education, 1776 Science Center Drive, Idaho Falls, Idaho

    B. Licensed material identified in Item 8.U. shall be used at the licensee's facilities located at Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, Idaho.

    C. Licensed material identified in Item 8.U. shall be used at temporary jobsites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

    If the jurisdiction status of a Federal facility within an Agreement state is unknown, the licensee should contact the federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

11. The Radiation Safety Officer for this license is Dr. Samir Shahat.

12. Licensed material shall be used by, or under the supervision of, individuals designated in writing by the Radiation Safety Committee Chairperson.

13. Notwithstanding the requirements of License Condition 27, the licensee is authorized to make program changes and changes to procedures specifically identified in the application dated May 17, 2001, and the letter dated October 2, 2001, which were previously approved by the Commission and incorporated in 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;

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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.

14. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.

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 the 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 received from another person shall not be put into use until tested and the test results received.

D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.

E. Sealed sources need not be leak 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.

F. 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.

G. 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.

H. 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.

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

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15. 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.

16. 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.

17. 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, storage, or when not under the direct surveillance of an authorized user.

18. Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the source rod shall be performed only the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

19. 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.

20. 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."

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

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

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

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24. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

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

26. A. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of unsealed licensed material to quantities less than 10^5 times the applicable limits in Appendix B of 10 CFR Part 30, as specified in 10 CFR 30.35(d).

B. Notwithstanding License Condition 26.A., the licensee is authorized to possess Krypton-85 listed in Items 6.M., 7.M., and 8.M. in accordance with the letter dated December 26. 2002.

27. 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 17, 2001 (ML012200556)
B. Letter dated October 2, 2001 (ML012200556)
C. Letter dated December 26, 2002 (ML030430638)
D. Letter dated June 14, 2005 (ML051930119)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date: August 31, 2009

By: _____
Roberto J. Torres, Senior Health Physicist
Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4125