NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 24

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 April 2, 2012
1. Texas A&M University Environmental Health & Safety Department	3. License number 42-09082-09 is amended in its entirety to read as follows:
2. 4472 TAMU College Station, Texas 77843-4472	4. Expiration date April 30, 2018
	5. Docket No. 030-01066 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. 50 millicuries
B. Sulfur-35	B. Any	B. 20 millicuries
C. Calcium-45	C. Any	C. 100 millicuries
D. Cesium-134	D. Any	D. 1 millicurie
E. Hydrogen-3	E. Any	E. 100 millicuries
F. Phosphorus-32	F. Any	F. 50 millicuries
G. Phosphorus-33	G. Any	G. 10 millicuries
H. Neptunium-237	H. Any	H. 1 microcurie
I. Thorium-228	I. Any	I. 1 microcurie
J. Thorium-232	J. Any	J. 1 microcurie
K. Thorium-234	K. Any	K. 10 microcuries
L. Plutonium-240	L. Any	L. 1 microcurie
M. Plutonium-242	M. Any	M. 1 microcurie
N. Nickel-63	N. Sealed sources (Isotope Products Laboratories or AEA Technology custom plated sources, QSA Global Model NBCD, or IPL Model NER-004P)	N. 15 millicuries per source and 60 millicuries total

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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
O. Cesium-137	O. Sealed sources (Isotope Products Laboratories Model HEG-137 (formerly Model 225))	O. 40 millicuries total. Not to exceed 10 millicuries per source.
P. Europium-152	P. Sealed sources (Isotope Products Laboratories Model GF-XXX Type R Series)	P. 20 microcuries total. Not to exceed 10 microcuries per source.

9. Authorized use:

A. through M. For research and development as defined in 10 CFR 30.4 and for educational purposes. For in vitro studies. Studies in animals are not authorized.

N. To be used in sample analysis in compatible gas chromatographs devices 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 the distribution to persons specifically authorized by an NRC or Agreement State license to receive, possess, and use the devices.

O. For use in gamma ray attenuators and porosity evaluators to measure by transmission methods the density of ocean cores.

P. For energy calibrations of NaI(Tl) detectors used in core logging.

CONDITIONS

10. Licensed material may be used aboard any Texas A&M University research vessel, or aboard other ships under contract between Texas A&M University and the ship owner for in vitro tracer studies at temporary job sites of the licensee in offshore waters where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material. Licensed material may also 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, including areas of exclusive Federal jurisdiction within Agreement States.

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. Licensed material shall only be used by, or under the supervision of, individuals designated in writing by the Radiological Safety Committee, John W. Poston, Ph.D., Chairperson.

12. The Radiation Safety Officer (RSO) for this license is Latha Vasudevan, Ph.D., CHP.

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13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.

B. Notwithstanding Paragraph A of this Condition, sealed sources 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 under equivalent regulations of 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. 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 or detector cells 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.

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, 1600 East Lamar Boulevard, Arlington, Texas 76011-4511, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.

H. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other 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 5 years.

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

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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. 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."

17. Licensed material shall not be used in or on human beings except as provided otherwise by specific condition of this license.

18. 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 in the certificate of registration issued by the NRC pursuant to 10 CFR 32.210 or equivalent regulations from an Agreement State.

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

19. This license does not authorize disposal of licensed material at sea.

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

21. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.

22. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources 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.

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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 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 October 29, 2007 (ML073340121)
B. E-mail dated April 22, 2008 (ML081140264)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date: July 27, 2012 By: _____

Jacqueline D. Cook, Senior Health Physicist
Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4511