UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 15, 2007

Docket No. 030-16045 License No. 45-09599-03
Control No. 140778

Mohammed A. Karim
Vice President of Research
Old Dominion University
Office of Research
1 Old Dominion University
Norfolk, VA 23529

SUBJECT: OLD DOMINION UNIVERSITY, LICENSE AMENDMENT, CONTROL NO. 140778

Dear Mr. Karim:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U. S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Industrial, and Academic Uses of Nuclear Material;** then **Toolkit Index Page.** Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Bryan A. Parker

Bryan A. Parker
Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 39

cc:
Stephanie Woolf, Radiation Safety Officer

DOCUMENT NAME: C:\FileNet\ML072280300.wpd

SUNSI Review Complete: BParker
After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: "**C**" = Copy w/o attach/encl "**E**" = Copy w/ attach/encl "**N**" = No copy

OFFICE	DNMS/RI	N	DNMS/RI		DNMS/RI			
NAME	BParker ***/BAP/***							
DATE	08/15/07							

OFFICIAL RECORD COPY

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 July 5, 2007,
1. Old Dominion University Environmental Health and Safety Office	3. License No. 45-09599-03 is amended in its entirety to read as follows:
2. Hughes Hall, Room 2061 Norfolk, Virginia 23529	4. Expiration Date: November 30, 2005 (Extended)
	5. Docket No. 030-16045

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 3 through 83 and with a half-life of not more than 120 days, except as follows:	A. Any	A. Not to exceed 150 millicuries per radionuclide and 5 curies total, except as follows:
B. Cadmium 109	B. Electroplated sources	B. 20 millicuries
C. Calcium 45	C. Any	C. 4 millicuries
D. Carbon 14	D. Any	D. 500 millicuries
E. Cesium 137	E. Sealed source	E. 165 millicuries
F. Chlorine 36	F. Any	F. 5 millicuries
G. Cobalt 60	G. Sealed source	G. 10 millicuries
H. Hydrogen 3	H. Any	H. 500 millicuries
I. Nickel 63	I. Foils or plated sources	I. Not to exceed 20 millicuries per source and 500 millicuries total
J. Plutonium 236	J. Any	J. 5 microcuries
K. Plutonium 239	K. Any	K. 5 microcuries
L. Thorium 229	L. Any	L. 2 microcuries
M. Thorium 232	M. Any	M. 100 microcuries
N. Tin 119m	N. Electro-deposited on foils	N. 4 millicuries

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License No.
45-09599-03

Docket No.
030-16045

Amendment No.
39

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. Uranium 232	O. Any	O. 1 microcurie
P. Uranium 236	P. Solid	P. 15 microcuries
Q. Natural Uranium	Q. Any	Q. 100 microcuries
R. Zinc 65	R. Any	R. 10 millicuries
S. Manganese 54	S. Any	S. 5 millicuries
T. Cadmium 109	T. Any	T. 5 millicuries

9. Authorized use:

A. - T. Research and development as defined in 10 CFR 30.4; animal studies; teaching and training of students; and calibration and checking of the licensee's instruments.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at Old Dominion University (ODU) in Norfolk, Virginia except that:

A. Hydrogen 3, carbon 14 and iodine 125 may also be used aboard research vessels anywhere in the United States where the U. S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material; and

B. Nickel 63 foils or plated sources for research and development 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.

11. The Radiation Safety Officer (RSO) for this license is Stephanie Woolf.

12. Licensed material shall be used by, or under the supervision of, individuals designated by the Radiation Safety Committee, Scott R. Sechrist, Ph.D., Chairperson.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License No.
45-09599-03

Docket No.
030-16045

Amendment No.
39

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

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

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 U. S. Nuclear Regulatory Commission or an Agreement State to perform such services.

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

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

18. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at such intervals as specified by 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 primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.

    C. 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.

    D. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

    E. 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.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License No.
45-09599-03

Docket No.
030-16045

Amendment No.
39

F. Sealed sources need not be tested if they are not designed to emit alpha particles, 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 five days of the date the leak test result is known with the appropriate U. S. Nuclear Regulatory Commission, Regional Office referenced in Appendix D of 10 CFR Part 20. The report shall specify the source involved, the test results, and corrective action taken.

H. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the U. S. Nuclear Regulatory Commission or an Agreement State to perform such services.

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

20. The licensee is authorized to hold radioactive 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 it:

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 and 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 material for three 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.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License No.
45-09599-03

Docket No.
030-16045

Amendment No.
39

21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of unsealed licensed material to quantities less than 10^4 times the applicable limits in Appendix C of 10 CFR Part 20 pursuant to 10 CFR 30.35(d).

22. A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.

    B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.

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

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

25. The licensee shall not acquire licensed material in a sealed source or device that contains a sealed source unless the source or device has been registered with the U. S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.

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 (with attachments) and cover letter dated May 23, 1995
    B. Letter dated May 31, 1990 [with attachments]
    C. Letter dated November 8, 1995 [clarifying information in response to NRC fax dated 10/27/95]
    D. Letter dated November 17, 1995 [amend L/C 18 for decay-in-storage with half-lives of <120 days]
    E. Letter dated November 27, 1995 [addition of new work site]
    F. Letter dated January 22, 1996 [change RSC Chairman]
    G. Letter dated May 2, 1996 [add building for RAM use; change wording of research vessels used; and use of Ni-63 foils or plated sources for R&D at various sites in U.S.]
    H. Letter dated May 29, 1996 [additional information regarding Ni-63 foils or plated sources use]
    I. Letter dated March 3, 1997 [add location at ODU; revise hood flow criteria; add calibration procs]
    J. Letter dated August 21, 1997 [change RSC Chair]
    K. Letter dated November 4, 1997 [change RSC membership]

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License No.
45-09599-03

Docket No.
030-16045

Amendment No.
39

L. Letter dated January 7, 1998 [adds location for sewer waste disposal]
M. Letter dated June 23, 1999 [add Mn-54 and Cd-109 for R&D]
N. Letter dated November 8, 1999 [change of mailing address for Radiation Safety Office]
O. Letter dated February 16, 2000 [release some facilities for unrestricted use]
P. Letter dated April 25, 2000 [additional information regarding release of facilities]
Q. Letter dated October 17, 2000 [add location of use]
R. Letter dated April 30, 2002 [change RSO]
S. Letter dated September 30, 2002 [change of mailing address for ODU]
T. Letter dated April 24, 2003 [change RSC Chairperson]
U. Letter dated September 1, 2003 [increase poss limit, C-14 and H-3 to 500 mCi each]

For the U. S. Nuclear Regulatory Commission

Date August 15, 2007

By ***Original signed by Bryan A. Parker***

Bryan A. Parker
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406