



The College Of
WILLIAM & MARY

Chartered 1693

Virginia Institute of Marine Science
School of Marine Science

Office of Safety and Environmental Programs

P.O. Box 1346
Gloucester Point, Virginia 23062-1346 USA
804/684-7000, FAX 804/684-7142
safety@vims.edu

March 18, 2005

Sam Nunn Atlanta Federal Center
U.S. Nuclear Regulatory Commission, Region II
61 Forsyth Street, S.W. Suite 23785
Atlanta, Georgia 30303-8931

Subject: Request to Renew NRC License 45-07112-01 03006569

The following is a request to renew subject NRC License issued to the Virginia Institute of Marine Science. Please note the enclosed NRC Form 313 and additional supportive documentation.

In addition, those License Items or portions of Items in which addition, deletion or alteration is requested are designated in **BOLD** typeface.

Should additional information be required to complete this request I may be reached via telephone at (804) 684-7152 or via electronic mail at twgrose@vims.edu.

Sincerely,

Thomas W. Grose
Director, Safety and Environmental Programs/RSO

VIMS

REC'D IN LAT 3/21/2005

136667
NMSS/RGNI MATERIALS-002

APPLICATION FOR MATERIAL LICENSE

Estimated burden per response to comply with this mandatory collection request: 7.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0000), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO
RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,
SEND APPLICATIONS TO:

SAM NUNN ATLANTA FEDERAL CENTER
U. S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-8931

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND
APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA,
OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR
WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

03006569
X

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

☐

A. NEW LICENSE

☐

B. AMENDMENT TO LICENSE NUMBER

☒

C. RENEWAL OF LICENSE NUMBER 45-07112-01

2. NAME AND MAILING ADDRESS OF APPLICANT (include ZIP code)

College of William and Mary
Virginia Institute of Marine Science
P.O. Box 1346
Gloucester Point, VA 23062

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

1208 Greate Road
Gloucester Point, VA 23062

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Thomas W. Grose

TELEPHONE NUMBER

804-684-7152

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount
which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

**7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR
TRAINING EXPERIENCE.**

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AEAS

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY AMOUNT
ENCLOSED \$

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPE/PRINTED NAME AND TITLE

T.W. Grose, Dir. Safety/Enviro Programs/RSO

SIGNATURE

Thomas W. Grose

DATE

3-18-05

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

March 18, 2005

Sam Nunn Atlanta Federal Center
U. S. Nuclear Regulatory Commission, Region II
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303-8931

License No. 45-07112-01
Expiration Date: 04/30/2005
Program Code: 03620

The following information is given in support of renewal of License No. 45-07112-01 and is in addition to information provided on the enclosed NRC Form 313.

Item 5. RADIOACTIVE MATERIAL

Unsealed Materials	Chemical and/or Physical Form	Maximum Amount licensee may possess at any one time by license
A. Hydrogen 3	Any	16.65 GBq/450 mCi
B. Carbon 14	Any	Request Increase from: 3.7 GBq (100 mCi) to 7.4 GBq (200 mCi)
C. Phosphorus 32	Any	925 MBq (25 mCi)
D. Chromium 51	Any	925 MBq (25 mCi)
E. Sulfur 35	Any	925 MBq (25 mCi)
F. Iodine 125	Any	185 MBq (5 mCi)
G. Calcium 45	Any	185 MBq (5 mCi)
H. Phosphorus 33	Any	185 MBq (5 mCi)
I. Iron 55	Any	185 MBq (5 mCi)
J. Lead 210	Any	37 MBq (1 mCi)
K. Polonium 209	Any	37 MBq (1 mCi)
L. Plutonium 242	Any	Request to Add to License 0.037 MBq (1.0 uCi)

Sealed Materials	Chemical and/or Physical Form	Maximum Amount licensee may possess at any one time by license
M. Hydrogen 3	Foils in electron capture detector	Request to Remove from License Not to exceed 9.25 GBq (250 mCi) per foil or source.
N. Nickel 63	Foils/plated sources in electron capture detectors	Not to exceed 555 MBq (15 mCi) per foil or source. Total of 3700 MBq (100 mCi)
O. Europium 152	Foils or plated sources in Liquid Scintillation Counters	Request to Add to License. Not to exceed 1.85 MBq (50 uCi) per foil or source. Total of 370 MBq (10 mCi)
P. Cesium 137	Foils or plated sources in Liquid Scintillation Counters	Request to Add to License. Not to exceed 1.85 MBq (50 uCi) per foil or source. Total of 370 MBq (10 mCi)

Nickel 63 Sources in Electron Capture Devices of Gas Chromatographs:

1. **Shimadzu Model GC-8A**
2. **Varian Model 3300**
3. **Varian Model 3400**

Europium 152 Sources in Liquid Scintillation Counters:

1. **Wallac Model 1409**

Cesium 137 Source in Liquid Scintillation Counter:

1. **Beckman LS6000LL**

Item 6. Purpose(s) for which Licensed Material will be Used.

Same purposes as stated in previous License applications/amendments.

Item 7. Individual(s) Responsible for Radiation Safety Program and Their Training and Experience.

Per previous agreement, Thomas W. Grose, Radiation Safety Officer and Kimberly Reece as Alternate Radiation Safety. In addition, Hugh Ducklow continues to serve as a Senior Authorized User. **Remove Catherine Chisholm-Brause as a Senior Authorized User and Morris Roberts as an Authorized User as they are no longer associated with VIMS. Please add Peter A. van Veld Ph. D. as a Senior Authorized User.**

A history of training/experience with radioisotopes for Dr. van Veld follows:

Peter A. van Veld Ph.D.: 1976; Completed a 3 credit course in Radio-biology to study principles of radio-assay, principles of tracer techniques, safe handling procedures and hazards of radioisotopes in marine research at VIMS/College of William & Mary
1976-1980; Conducted C-14 labeled pesticide research at VIMS.
1980-1983; Conducted C-14 labeled herbicide research at VIMS
1983-1987; Conducted research using a variety of radioisotopes in tissue distribution studies of marine organisms.
1989-1994; Conducted DNA research of specific marine organisms using P-32 to assemble a reference database.
1994-Present; Conducts H-3 steroid radio-immune assay research

Item 8. Training for Individuals Working in or Frequenting Restricted Areas.

Training is per previous agreement in letter dated April 6, 1995 addressed to Mr. Earl Wright, NRC Region II, Item 5 A.

Item 9. Facilities and Equipment

We continue to modernize and centralize the facilities in which Radioactive Material is used for research purposes. To date we have successfully decommissioned six buildings as noted in letters submitted to NRC Region II dated February 13, 1998, March 24, 2000 and March 26, 2001. We anticipate continued modernization or replacement of older facilities over the next five years.

Item 10. Radiation Safety Program

With regard to the "Chain of Command" maintaining responsibility for the Radiation Safety Program there have been two significant changes. The School of Marine Science, Virginia Institute of Marine Science has a new Dean/Director; John T. Wells Ph.D. In addition, the former Radiation Safety Officer, Thomas W. Grose, now assumes the responsibility of Director of Safety & Environmental Programs, as well as, the duties of Radiation Safety Officer. Thus the new "Chain of Command" is as follows:

John T. Wells, Dean/Director > Thomas W. Grose, Director S&EP/RSO > Principal Radioisotope Researcher > Laboratory Manager > Laboratory Technician/Graduate Student

Item 11. Waste Management

In addition to RSO Inc of Laurel, MD noted as a primary waste contractor in the January 20, 1995, letter to NRC Region II, Bionomics Inc of Kingston, TN has also served as a primary waste disposal contractor over the past several years.

Item 12. License Fees

The School of Marine Science/Virginia Institute of Marine Science is a non-profit educational institute and thereby applies for exemption in regard to the licensing fees.

This is to acknowledge the receipt of your letter/application dated

3/18/2005, and to inform you that the initial processing which includes an administrative review has been performed.

☒ Review 45-07112-01 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 1366667.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

BETWEEN: : (FOR LFMS USE)
: INFORMATION FROM LTS
: -----
:
License Fee Management Branch, ARM : Program Code: 03620
and : Status Code: 2
Regional Licensing Sections : Fee Category: EX 3M
: Exp. Date: 20050430
: Fee Comments: 170.11(A) (4)
: Decom Fin Assur Req'd: N
: ::::::::::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: WILLIAM AND MARY, COLLEGE OF
Received Date: 20050321
Docket No: 3006569
Control No.: 136667
License No.: 45-07112-01
Action Type: Renewal

2. FEE ATTACHED

Amount: /
Check No.: /

3. COMMENTS

Signed
Date

Rebecca J. Juncos
3/28/05

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed
Date

