

(10-84)  
10 CFR 30, 32, 33  
34, 35, 36, 39 and 40

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 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. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-8 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

## APPLICATION FOR MATERIAL LICENSE

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:

NUCLEAR MATERIALS LICENSING SECTION  
U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
101 MARIETTA STREET, NW, SUITE 2900  
ATLANTA, GA 30323-0199

## IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION  
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 76011-8084

LL 30378  
030 = 34385  
02400

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 \_\_\_\_\_

## 2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

Cardiopet Veterinary Associates, P.A.  
48 Notch Road  
Little Falls, New Jersey 07424

## 3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

SAME

## 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

John C. Ramsey

TELEPHONE NUMBER  
908-788-9440

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 AREAS.

## 9. FACILITIES AND EQUIPMENT.

## 10. RADIATION SAFETY PROGRAM.

## 11. WASTE MANAGEMENT.

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

FEE CATEGORY 3P

AMOUNT  
ENCLOSED \$ 550.00

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

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, 1949 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 - TYPED/PRINTED NAME AND TITLE

Katy Calia, D.V.M.

SIGNATURE

DATE

2/6/97

## FOR NRC USE ONLY

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

1 2 4 2 3 1

**Item 5 and 6**

**Radioactive Material and Purpose**

**Byproduct Material**

**Amount**

**Purpose**

5.a Material in 35.300  
Iodine 131 only.

10 mCi max. in  
single use double  
assayed syringes

6.a Treatment  
of feline  
hyperthyroidism by  
i.v. injection

**Item 7**

**Individuals Responsible for Radiation Safety Programs**

**Authorized Users for Medical Use**

Katy Calia, D.V.M.  
Training and Experience Attached

**Material**

Iodine 131

**Radiation Safety Officer**

Hardi Liauw, Ph.D.

Attached are copies of training and experience, materials licenses for Nebraska (as authorized user) and Maine (as Radiation Safety Officer).

**CATHRYN M. CALIA, DVM**

Diplomate American College of Veterinary Internal Medicine (Internal Medicine)

**EDUCATION**

University of Minnesota, College of Veterinary Medicine, St. Paul, MN

Doctor of Veterinary Medicine, 1991

Cornell University, College of Agriculture and Life Sciences, Ithaca, NY

Bachelor of Science, 1987

**WORK EXPERIENCE**

**The Animal Medical Center, New York, NY**

**Resident, Internal Medicine**

**July 1993 - July 1995**

Intensive training in all aspects of internal medicine with concentration in nephrology, endocrinology, gastroenterology, respiratory medicine, emergency and critical care. Continuing education included resident journal club, staff house lecture series, radiology/ultrasound rounds with board certified radiologist and internist.

**Ansonia Veterinary Center, New York, NY**

**Staff Veterinarian**

**July 1992 - July 1993**

Responsible for complete inpatient/outpatient medical and surgical cases. Performed routine surgeries and medical workups.

**The Animal Medical Center, New York, NY**

**Intern, Medicine & Surgery**

**July 1991 - July 1992**

Rotating medical/surgical internship; and emergency and critical care rotations.

**PUBLICATIONS**

***Acute tumor lysis syndrome in a cat with lymphoma.*** Cathryn M. Calia, Ann E.

Hohenhaus, Philip R. Fox, Karri A. Meleo. *Journal of the American College of Veterinary Internal Medicine*, in press.

***The use of computed tomography scan in the evaluation of orbital disease in cats and dogs.*** Cathryn M. Calia, Susan E. Kirschner, Keith Baer, Joseph Stefanacci. *Veterinary & Comparative Ophthalmology*, volume 4, number 1, Spring 1994, pp. 24-30.

**ONGOING RESEARCH**

**First time transfusion reactions in dogs.** Research completed at the Animal Medical Center, New York, NY.

**LECTURES**

**Intensive Post Graduate Course, The Animal Medical Center, New York, NY**

**Clinical Instructor, Renal/Endocrine/Reproductive disease**

**Mercy College Veterinary Technician Program, New York, NY**

**Clinical Instructor, Ophthalmology**

**RADIOLOGY/RADIATION THERAPY/NUCLEAR MEDICINE EXPERIENCE**

**University of Minnesota, College of Veterinary Medicine, St. Paul, MN (July 1996)**

Clinical experience in the treatment of hyperthyroidism in cats with oral iodine-131, 4 hours.

**North Carolina State University, College of Veterinary Medicine, Raleigh, NC (March 1996)**

Small animal nuclear medicine course, with lectures and wet labs on radiation physics and instrumentation, radiation protection, mathematics pertaining to the use and measurement of radioactivity, handling of radionuclides.

radiopharmaceutical chemistry, interpretation of nuclear medicine studies, 16.5 hours.

**The Animal Medical Center, Donaldson-Atwood Cancer Clinic, NY, NY (May-July 1992)**

Oncology rotation; included instruction in radiation biology, radiation therapy simulations, 240 hours.

**University of Minnesota, College of Veterinary Medicine, St. Paul, MN**

Senior Radiology Rotation, 80 hours (1990-1991)

Clinical rotation, performance and interpretation of various radiologic studies, including CT scanning, myelograms, contrast studies, fluoroscopy, survey films.

Applied Radiology, 60 hours (1989-1990)

Lecture series, emphasis on interpretation of radiologic studies.

Radiation Physics, 48 hours (1988-1989)

Lecture series, basic radiation physics, radiation protection.

**REFERENCES**

Adams, William H. Thyroid Radiotherapy: Iodine-131. In Berry, C.R and Daniels, G.B. eds. Handbook of Veterinary Nuclear Medicine, 1996.

Peterson, Mark E. and Becker, David V. Radioiodine treatment of 524 cats with hyperthyroidism. Journal of the American Veterinary Medical Association, Volume 207, Number 11, December 1, 1995, pp. 1422-1428.

Peterson, Mark E. Treatment of feline hyperthyroidism. In: Kirk, Robert W. ed. Current Veterinary Therapy X. Philadelphia: WB Saunders Co., 1989; pp.1002-1008.

The State of New Jersey  
Board of Veterinary Medical Examiners

Certifies that

Cathryn M. Calia-Schrope, D.V.M.

*has passed a satisfactory examination before this Board and is hereby licensed  
To Practice Veterinary Medicine, Surgery and Dentistry  
in the State of New Jersey.*

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*No. 4194*

*Trenton, New Jersey*

*December 18, 1995*



*Michael J. Hunsery, D.M.*  
President

*Ralph E. Wern*  
Secretary

# INDIVIDUAL TRAINING AND EXPERIENCE

supplemental sheet to HHE Form 850

**INSTRUCTIONS:** This must be completed for all personnel who will be working with or supervising activities involved with radioactive material. Copies of this sheet may be made as needed. Additional information may be required. Consult the specific license application guide.

## 1. NAME AND TITLE OF PERSON

Hardi Liauw, DMV, MSc. Ph.D.  
Research Scientist

## 2. TRAINING

	Where	How Long (months)	Formal Course	On-The Job
a) Principles and practices of Radiation Protection	Texas A&M University, College Station, TX Fermenta Animal Health, Omaha, NE	6 mos.	Radioisotopes Tech. (Fall 1978)	Training on the job
b) Radioactivity measurement standardization and monitoring techniques and instrumentation	Texas A&M University, College Station, TX	6 mos.	Course	
c) Mathematics and calculations basic to use and measurement of radioactivity	Texas A&M University, College Station, TX	6 mos.	Course	
d) Biological effects of radiation	Texas A&M University, College Station, TX	6 mos.	Course	

## 3. EXPERIENCE: Provide a narrative of experience in working with radioactive materials.

at IDEXX - working with  $^{35}\text{S}$  and  $^{14}\text{C}$  in Radioimmunoassay Precipitation Assay.

at Fermenta Animal Health - working with  $^{14}\text{C}$  in Thymidine Kinase Plaque Autoradiography.  
- functioning as a Radiation Safety Officer from 1989-1991

## 4. CERTIFICATION: I certify that the above mentioned information is true and correct.

DATE 10-13-95

SIGNATURE Hardi Liauw