

APPLICATION FOR MATERIALS LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.3 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 and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), 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:

OFFICE OF FEDERAL & STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

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
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, 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 BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

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)

Advanced Animal Imaging Services, LLC
5902 Homestead Road
Fort Wayne, Indiana 46814

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

5902 Homestead Road
Fort Wayne, Indiana 46814

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Patrick J. Byrne, CHP, DABR, DABSNM

TELEPHONE NUMBER

(877) 317-5811

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

FEE CATEGORY **3.P.** AMOUNT ENCLOSED **\$ 1,400.00**

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, 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 -- TYPED/PRINTED NAME AND TITLE

JOHN BORMANN M.D.

SIGNATURE

[Signature]

DATE

1/25/10

FOR NRC USE ONLY

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

Item 5: Radioactive Material

	Radioisotope	Chemical/Physical Form	Maximum Possession
a.	Tc-99m	Any/Liquid	10 Curies
b.	I-123	Any/Liquid and/or Capsules	1 Curie
c.	I-131	Any/Liquid and/or Capsules	5 Curies
d.	Sm-153	Any/Liquid	2 Curies
e.	In-111	Any/Liquid	1 Curie
f.	Ga-67	Any/Liquid	1 Curie
g.	Tl-201	Any/Liquid	1 Curie
h.	Sr-89	Any/Liquid	1 Curie
i.	P-32	Any/Liquid	1 Curie
j.	Cs-137	Any/Sealed Sources	1 milliCurie total, not to exceed 400 μ Ci per source
k.	Ba-133	Any/Sealed Sources	1 milliCurie, not to exceed 500 μ Ci per source
l.	Co-57	Any/Sealed Sources	30 milliCuries, not to exceed 15 milliCuries per source

**Iodine will be used in non-volatile form only

Item 6: Purpose(s) for Which Licensed Material Will Be Used

Materials listed in 5.a. through 5.i. will be used by Veterinarians for diagnostic and therapeutic purposes. Radioisotopes will be used for diagnostic purposes in both pets and farm animals. Therapeutic uses of radioisotopes will be limited to pets.

Materials listed in 5.j., 5.k., and 5.l. will be used for the calibration and quality control of equipment.

Item 7: Individuals Responsible For Radiation Safety Program and Their Training Experience

Radiation Safety Officer: Ryan Harrell, C.N.M.T.

Mr. Harrell is a Certified Nuclear Medicine Technologist (C.N.M.T.) and holds a Bachelors of Science in Animal Science as well as a Bachelors of Science in Nuclear Medicine Technology.

Authorized Users:

Ryan Harrell, C.N.M.T.

John Bormann, M.D.*

Brett Hagedorn, M.D.*

*Is currently listed as an Authorized User of materials licensed under 10 CFR 35.100, 35.200, and 35.300 on U.S.N.R.C. License Number 13-01535-01 (QHG of Indiana, Inc.).

Item 8: Training for Individuals Working In Or Frequenting Restricted Areas

Training will be performed with the following frequency:

- A. Before assuming duties with, or in the vicinity of, radioactive materials.
- B. Whenever there is a significant change in duties, regulations, or the terms of the license.
- C. Once per calendar year (refresher training).

Training requirements will be divided into two classes: 1. workers who are not likely to receive 100 mrem per year from licensed activities but who will be frequenting the restricted areas and 2. workers likely to receive 100 mrem per year from licensed activities.

For class 1 workers, training will be limited to the following topics:

- a. Areas to be entered or not entered.
- b. Symbols to be aware of.
- c. Who to contact should a question involving radiation/radioactive materials arise.
- c. Specific information pertinent to the performance of job duties in the restricted area.

Training for class 1 workers may be conducted personally by the Radiation Safety Officer (RSO), Authorized User or RSO delegate , taped lecture, or printed handout.

For class 2 workers, training will cover the following topics:

- a. Radiation Safety
 1. radiation vs. contamination
 2. internal vs. external exposure
 3. biological effects of radiation
 4. ALARA concept
 5. use of time, distance, and shielding to minimize exposure
- b. Regulatory Requirements
 1. RSO
 2. material control and accountability
 3. personnel dosimetry
 4. radiation safety program audits
 5. transfer and disposal
 6. record keeping
 7. surveys
 8. postings
 9. labeling of containers
 10. handling and reporting of incidents or events
 11. licensing and inspection by the NRC
 12. need for complete and accurate information
 13. employee protection
 14. deliberate misconduct

c. Policies and Procedures

1. authorized users and supervised users
2. ordering and receiving radioisotopes
3. applicable regulations and license conditions
4. areas of radioactive material usage and storage
5. appropriate radiation safety procedures
6. reporting unsafe conditions or unusual events to RSO
7. response to spills or emergencies
8. personnel dosimetry program
9. location of postings required by 10 CFR Part 19
10. radiation and radioactive material survey program
11. waste disposal

Training for class 2 workers may be conducted personally by the Radiation Safety Officer (RSO), Authorized User or RSO delegate, taped lecture, or printed handout.

Item 9: Facilities and Equipment

Enclosed is a diagram of the restricted areas of the facility.

All restricted areas will be controlled by locked doors.

A room is available for the handling of radioactive wastes. All radioactive wastes will be held in shielded containers prior to decay in storage or transfer to a licensed recipient.

Animals administered radioactive materials will be kept in shielded cages. The cages will be shielded such that unrestricted areas will not experience radiation levels in excess of 2 mrem in one hour or 100 mrem in one year.

Item 10: Radiation Safety Program

Radiation Monitoring Instruments

A portable radiation survey meter will be available for performing required area and package surveys. A sodium iodide multichannel analyzer will be available for the measurement of surface contamination levels as well as the performance of bioassays.

We will use instruments that meet the radiation monitoring instrument specifications published in Appendix M to NUREG-1556, Vol. 7, 'Program-Specific Guidance About Academic, Research and Development, and Other Laboratory Licenses of Limited Scope,' dated December 1999. We reserve the right to upgrade our survey instruments as necessary.

Material Receipt and Accountability

Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license.

Occupational Dose

We have done a prospective evaluation and determined that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will monitor individuals in accordance with the criteria in the section entitled 'Radiation Safety Program – Occupational Dose' in NUREG-1556, Vol. 7, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Academic, Research and Development and Other Licenses of Limited Scope,' dated December 1999.

Safe Use of Radionuclides and Emergency Procedures

Procedures for the safe use of radionuclides, including security of materials, and emergencies have been developed, or will be developed before receipt of licensed material.

An "Emergency Response Plan" pursuant to 10 CFR 30.32(i) is not required because this materials in excess of the limits specified in 10 CFR 30.72, Schedule C will not be possessed.

We reserve the right to make changes in procedures. Procedures may be revised only if:

1. the changes are reviewed and approved by the licensee management and the RSO in writing;
2. the licensee staff is provided training in the revised procedures prior to implementation;
3. the changes are in compliance with the NRC regulations and the license; and
4. the changes do not degrade the effectiveness of the program

Surveys

We will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in Appendix Q to NUREG-1556, Vol. 7, 'Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope,' dated December 1999. Leak tests will be performed at the intervals approved by NRC or an Agreement State and specified in the SSD Registration Certificate. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services to other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreement State, to provide leak test kites to other licensees and according to the sealed source or plated foil manufacturer's (distributor's) and kit supplier's instructions.

Item 11: Waste Management

We will use the model waste procedures published in Appendix T to NUREG-1556, Volume 7 'Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope', dated December 1999.

BE IT KNOWN THAT THE TRUSTEES OF
PURDUE UNIVERSITY
UPON NOMINATION OF THE FACULTY OF THE
SCHOOL OF AGRICULTURE
HAVE GRANTED TO
RYAN JOE HARRELL
THE DEGREE OF
BACHELOR OF SCIENCE
IN RECOGNITION OF THE FULFILLMENT OF THE
REQUIREMENTS OF THAT DEGREE
AWARDED AT WEST LAFAYETTE IN THE STATE OF INDIANA
MAY 6, 2000.

Tom McSwiney
CHAIRMAN OF THE TRUSTEES



Thomas C. Bessing
PRESIDENT OF THE UNIVERSITY

Indiana University

School of Medicine

To all who may read these letters, Greeting:
hereby it is certified that upon the recommendation of the Faculty,
the Trustees of Indiana University have conferred upon

Ryan Joe Harrell


the degree of

Bachelor of Science

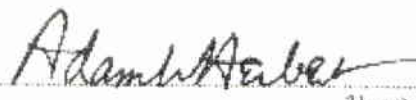
in Nuclear Medicine Technology


in recognition of the fulfillment of the requirements for this degree.
In Witness Whereof, this diploma is given at Indiana University -
Burdue University at Indianapolis, Indiana, May 8, 2005.


D. G. P. Ryan
Dean

Attest: 
Robin Ray Mess
Secretary of The Trustees




Adam Haber
President


Charles R. Bantz
Vice President

Nuclear Medicine Technology Certification Board

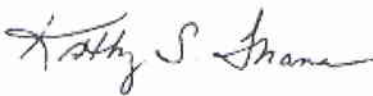
hereby certifies that

Ryan J. Harrell

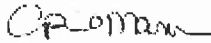
has met the requirements through examination
by this board and is hereby qualified
to practice the speciality of

Nuclear Medicine Technology

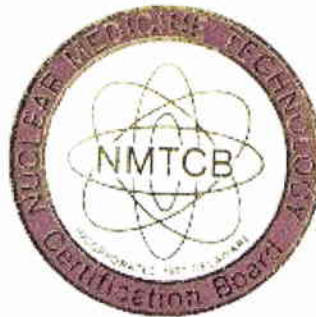
May 11, 2005



Chair



Secretary



Certificate Number
026799



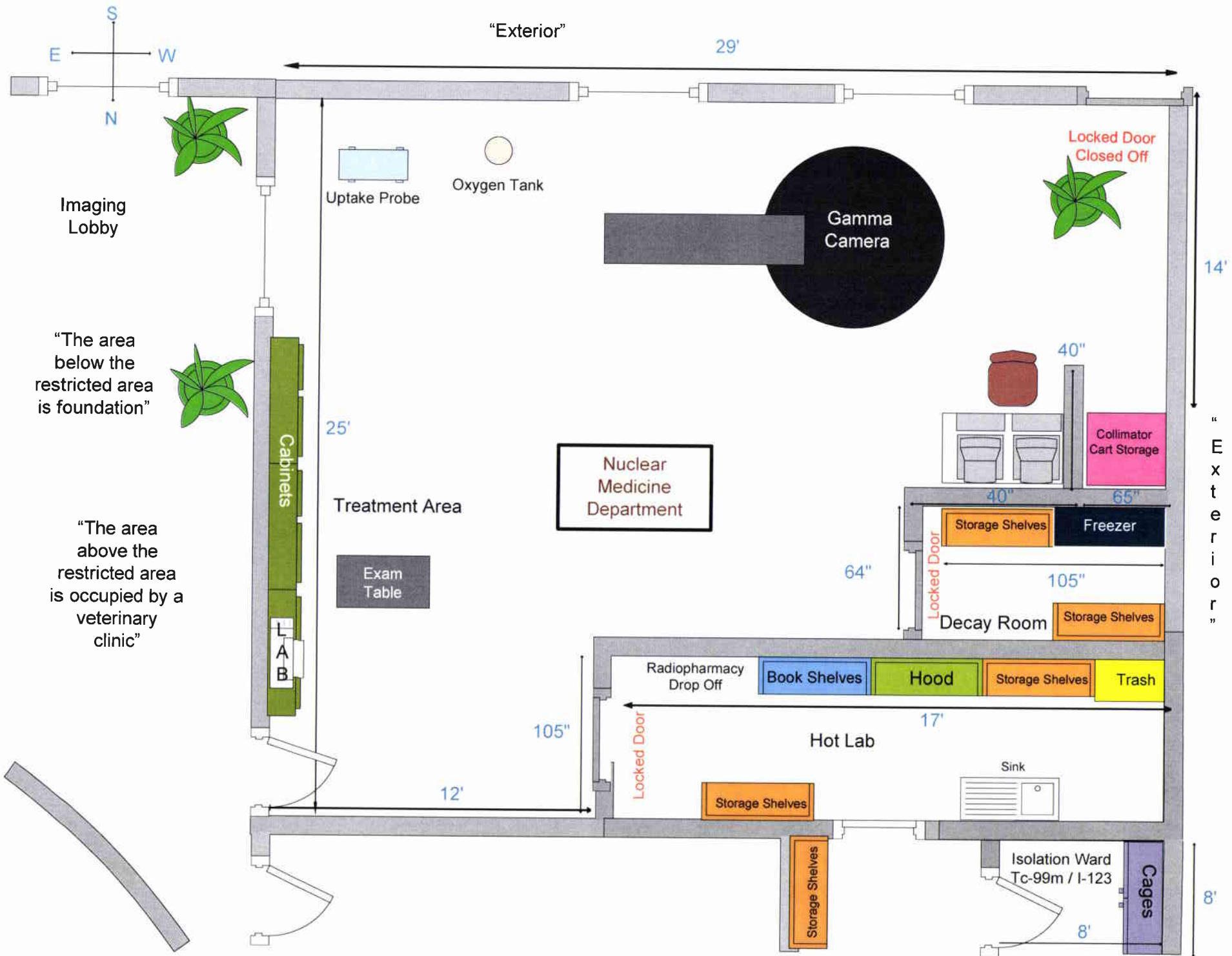
Indiana State Department of Health
2 North Meridian Street, Section 5F
Indianapolis, Indiana 46204-3010
(317) 233-7565

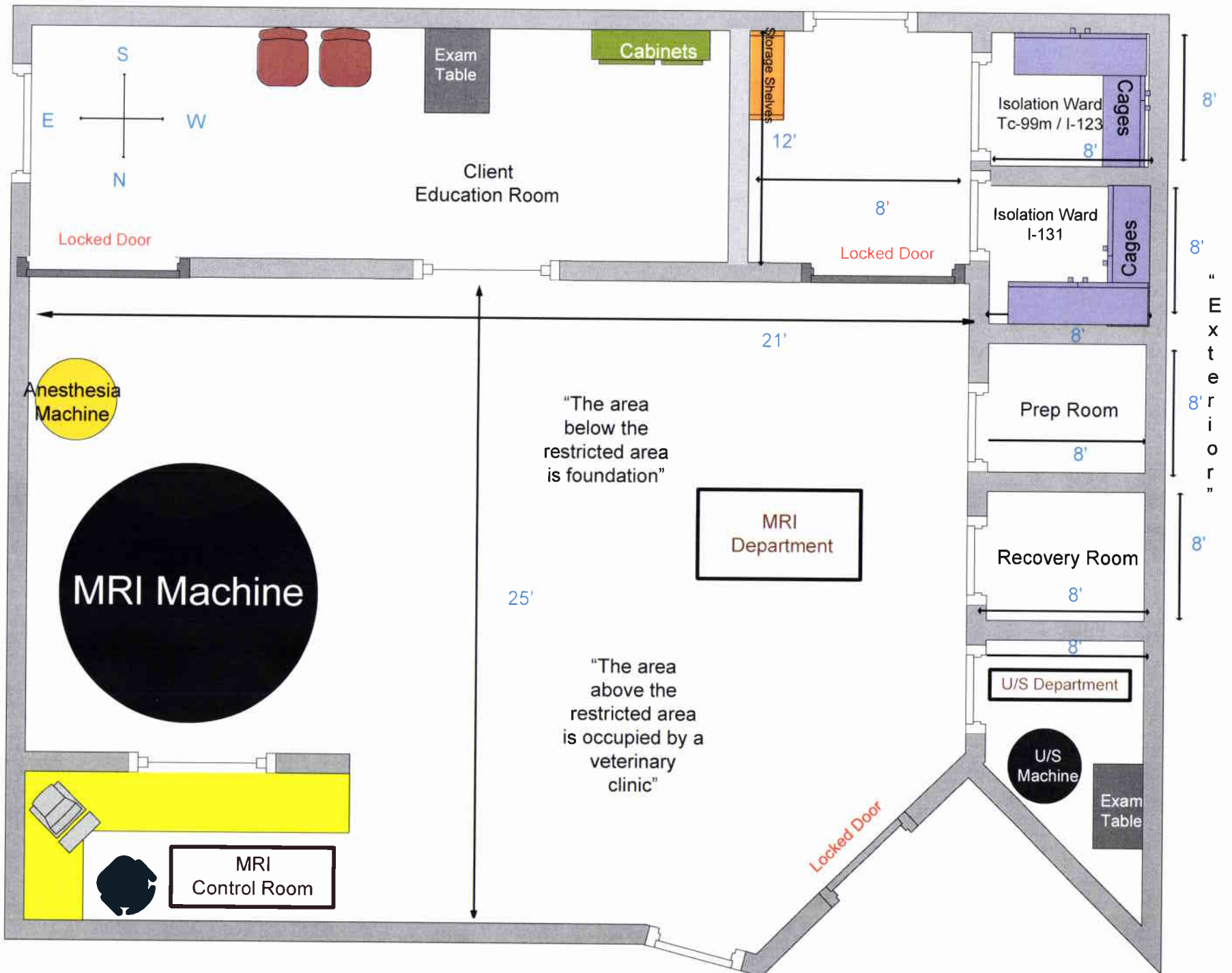
Nuclear Medicine Technologist License

Certificate Number	Status	Expire Date
XNM00019	Active	04/13/2011

Ryan J. Harrell

Judith A. Monroe, M.D.
Judith A. Monroe, M.D.
State Health Commissioner
Indiana State Department of Health





Advanced Animal Imaging Services, LLC
Att: Ryan Harrell
5902 Homestead Rd.
Fort Wayne, In 46814

CERTIFIED MAIL™



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CPU U.S. POSTAGE
PB 1P 000
3657650
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\$ 6.49⁰

MAILED JAN 26 2010
46804



**RETURN RECEIPT
REQUESTED**

Material Licensing Branch
U. S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352