

## APPLICATION FOR POSSESSION AND USE OF RADIONUCLIDES NEW "AUTHORIZED USER"

Complete all applicable items and sign the application. If you need assistance in completing this application, please call Environmental Health & Safety at 710-2900. Make one copy for your records and send the original to the Dept. of EHS, mail code #97290, or email to Karalyn\_Humphrey@baylor.edu.

*This form is fillable. It may also be printed out and completed in ink.*

1. **Applicant Name:** \_\_\_\_\_  
 Campus Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

3. **Nuclides** -Complete table for each nuclide; generic descriptions (e.g., amino acids, sugars, etc.) are acceptable.

Radionuclide	Chemical Form(s)	Physical Form <sup>1</sup>	Order Limit (mCi) <sup>2</sup>	Possession Limit (mCi) <sup>3</sup>

<sup>1</sup>Physical Form – solid (S), liquid (L), gas (G), or sealed source (SS)

<sup>2</sup>Order Limit – the maximum activity needed per order (vial, kit, etc.)

<sup>3</sup>Possession Limit – the maximum activity on lab's inventory at any time

4. **Source of Nuclides** – (include vendor name, address and phone number)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. **Uses** -Besides benchtop research, radioactive materials will also be:

- Used in vertebrate animals (Complete and submit required forms from Animal Care and Use Committee)  
 Used in a class, Course# \_\_\_\_\_ (Contact EHS to schedule Radiation Safety Training)

6. **Protocol Summary** – Using the Protocol Summary Sheet (separate sheet for each protocol), briefly describe your intended use for each radionuclide. Each protocol should include: expected radiation levels; how to contain the radioactive material; personal protective equipment; identification of excess radioactivity and how it is disposed of; and contamination cleanup procedures.

7. **Rooms** -List all room number(s) and building(s) for radioactive materials use, storage or counting.

Use in:		Rooms used only for		
Building	Rooms	Storage	Counting	Waste

8. **Training** -Personnel (including survey and waste personnel) working with radioactive materials in your radionuclide labs must complete Radioactive Materials Training and pass the quiz. What additional training / instructions will you give your radiation workers and workers who may be occasionally exposed (e.g., custodians, animal care workers, etc.), to radiation in your laboratory?

- New personnel will be trained in the handling, safe use of radionuclides, in the use of survey meters, wipe tests, and record keeping used in my labs by me or one of my trained personnel.
- I will provide oversight of radiation workers performing activities under my authorization.
- Additional training specific to this lab \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9. **ALARA** -What precautions will you take to minimize exposures to your personnel from radioactivity during use or while in storage? Radioactivity will be used and/or stored:

- behind shielding material (type and thickness) \_\_\_\_\_
- in a separate room or area not frequented by personnel,
- in an approved hood for volatile radionuclides,
- by personnel wearing protective clothing (indicate what PPE to use: lab coat, disposable gloves, safety glasses, etc.)  
 \_\_\_\_\_  
 \_\_\_\_\_
- other (specify) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

10. **Radioactive Waste** – What method(s) will be used to dispose of your radioactive wastes?

- Separation (by nuclide and physical form) and package for pickup by EHS (preferred).
- Decay, then disposed of as non-radioactive trash.
- Waste generation not anticipated.
- Other (specify) \_\_\_\_\_

11. **Security /Supervision of Radioactive Materials –**

How will you secure radioactive materials when no radiation workers are in the lab?

- Materials will be stored in a locked cabinet, refrigerator, freezer, or locked room (mandatory for stock vials).
- Room will be under direct supervision when radioactive materials are present or unsecured.
- Room or building will be locked when lab personnel are not present.
- Other (specify) \_\_\_\_\_

How will you secure radioactive (yellow bag) waste to prevent loss or theft?

- Waste container will be conspicuously marked; decay waste container / room will be locked.
- Waste will be stored in room not accessible to non-lab personnel (Room # \_\_\_\_\_ )
- Other (specify) \_\_\_\_\_

12. **Radiation Surveys –** At what frequency will your radionuclide rooms be surveyed?

- Daily when licensed radioactive material is used in the room.
- Monthly if my group has a total of 200  $\mu$ Ci in the lab during the month.
- Other (specify) \_\_\_\_\_

13. **Survey Meters -**What type of survey meter will you use to measure radiation count rates and/or exposure? Labs using very limited quantities (e.g., < 0.2 mCi per order) or very sporadic use (e.g., once a semester) may borrow (this is not recommended) a sensitive survey meter when using radioactive material. If you borrow a survey meter from another lab, list the PI \_\_\_\_\_ and Serial Number below.

- \*GM survey meter, model/SN \_\_\_\_\_ / \_\_\_\_\_
- Not applicable if counting with liquid scintillation counter

\*Survey instruments will be calibrated at least annually by (specify name and address):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. **Wipe Surveys –** What system will you use to count wipe survey samples? (see pg 2, item 7 -Rooms)

- Liquid scintillation counting (LSC) --Bldg/Rm # \_\_\_\_\_ / \_\_\_\_\_.
- Not applicable (e.g., only sealed sources, leak tested by EHS).

***Please read before signing:***

I agree to abide by all applicable regulations regarding the use of radionuclides as set forth by the State of Texas and the Baylor University Radiation Safety Committee including, but not limited to, the following:

1. All personnel who work with or in the vicinity of radioactive materials under my authorization, including animal caretakers and students, will be trained in accordance with the Baylor University Radiation Safety Manual.
2. All personnel will wear dosimeters, **if required**. All personnel using tritium or radioiodine will have urine or thyroid monitoring when required, as applicable. Female workers will be apprised of the Declared Pregnancy Program.
3. Any procedure which may result in the production of airborne radioactivity (e.g., gas, aerosol or dust) in activities greater than 10% of the limits given in the Baylor Radiation Safety Manual, must be performed within a fume hood or other facility approved by the Radiation Safety Committee.
4. All rooms containing radionuclides will be surveyed in accordance with the Baylor Radiation Safety Manual. All areas will be posted and containers labeled in accordance with the manual.
5. Records of radionuclide receipt, use, and disposal (i.e., inventories) will be maintained and radioactive wastes will be disposed of in accordance with the Baylor Radiation Safety Manual.
6. All radioactive materials, including radioactive waste, will be secured from unauthorized removal and will be under direct supervision when radioactive material is unsecured.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

University Job Classification:  
\_\_\_\_\_

**RETURN COMPLETED APPLICATION AND ATTACHMENTS TO:**

EHS – Radiation Safety Officer  
One Bear Place #97290

Alternatively, you may email the documentation to: [Karalyn.Humphrey@baylor.edu](mailto:Karalyn.Humphrey@baylor.edu)