

# Application for Possession and Use of Radioactive Materials in Basic Research

## Applicant

Name: \_\_\_\_\_ Degree: \_\_\_\_\_ Title: \_\_\_\_\_  
First MI Last (e.g., MD, Ph.D.) (e.g., Asst. Professor, Chairperson)

Department: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

University Affiliation (e.g., DU, DUCOM): \_\_\_\_\_ e-mail: \_\_\_\_\_

## Radioactive Material

Radionuclide: \_\_\_\_\_ Chemical Form: \_\_\_\_\_

Physical Form:

gas

liquid

sealed source

Make/model: \_\_\_\_\_

Device

make/model: \_\_\_\_\_

other solid

describe source (e.g., powder, activated metal): \_\_\_\_\_

Activity per order \_\_\_\_\_   $\mu\text{Ci}$    $\text{mCi}$    $\text{Ci}$  Order frequency \_\_\_\_\_ (e.g., weekly, monthly, etc.)

Activity per experiment \_\_\_\_\_   $\mu\text{Ci}$    $\text{mCi}$    $\text{Ci}$  Experiment frequency \_\_\_\_\_ (e.g., daily, weekly, etc.)

Maximum amount in lab at one time (including waste): \_\_\_\_\_   $\mu\text{Ci}$    $\text{mCi}$    $\text{Ci}$

**Methods/Procedures** Describe the **laboratory procedures** performed with radioactive materials. (Reprint may be attached if it includes detailed description of the methods)

Have you performed these procedures previously:  yes  no

*If these procedures involve administration of radioactive material to animals, complete the Animal Use Questionnaire. If you are applying for additional isotopes or additional chemical forms, complete the supplemental isotope form (a simplified copy of this page). Very similar chemical forms can be grouped together, e.g., nucleotide tri-phosphates.*

**Equipment and Facilities**

**Location** List the building(s) and room number(s) where radioactive materials will be used and stored, and the proposed use of the room, e.g., counting room, storage, laboratory use.

Campus	Building	Room No.	Use

**Analytical Radiation Detection Equipment** List the type (liquid scintillation counter, gamma counter, etc.), manufacturer, model number (if known), and location of any analytical equipment used with this protocol.

Type	Make & Model	Location

**Portable Radiation Survey Instruments** List the type(s), e.g., Geiger counter, scintillation detector, ion chamber; manufacturer and model number(s) of portable radiation survey instruments available in the facility.

Manufacturer & Model No.	Instrument / Probe Type

Describe available shielding:

Hood in laboratory:  yes, type: \_\_\_\_\_  no  
 Chemical fume, Laminar flow, etc.

**Waste** Indicate the type of waste and the disposal category that will be generated

	Solid	Aqueous Liquid	Organic Liquid	Liquid Scintillation Fluids		Animal Carcasses	Sealed Sources
				Toluene/Xylene	Non-flammable		
Storage for Decay Half-life < 3 days							
Storage for Decay Half-life < 100 days							
Sewer Disposal							
Exempt biomedical <0.05 µCi/g of <sup>14</sup> C or <sup>3</sup> H							
Mixed Waste Hazardous & radioactive							
Off-site Disposal							

By volume, estimate the waste generated annually:

Solids and liquids stored for decay: \_\_\_\_\_

Mixed waste: \_\_\_\_\_

Animal carcasses: \_\_\_\_\_

Off site disposal: \_\_\_\_\_

Liquid scintillation fluids: \_\_\_\_\_

By activity estimate the amount of waste to be sewer disposed per month: \_\_\_\_\_  µCi  mCi  Ci

**Personnel** List personnel who will be working with radioactive materials under the authorization for this project.

Name	Registered as a Radiation Worker	Initial radiation safety instructions provided by PI	Attended Radiation Safety Short Course