



**DREXEL UNIVERSITY
DREXEL UNIVERSITY COLLEGE OF MEDICINE**

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

Identification

Name First MI Last Suffix Degree (MD, Ph.D.)
Department Faculty Appointment:
E-mail Phone: Fax:

Location

Employer Drexel University Drexel College of Medicine Campus Center City Queen Lane Main Other:
Office Building Room

Radioactive Material

Radionuclide 1 Chemical Form:
Physical Form: gas liquid sealed source plated source other solid
For sealed or plated source: Mfg/model: Device mfg/model:
For other solid describe source (e.g., powder, activated metal):
Activity per order Order frequency per
Activity per experiment Experiment frequency per
Maximum amount in lab at one time (including in waste):

Radionuclide 2 Chemical Form:
Physical Form: gas liquid sealed source plated source other solid
For sealed or plated source: Mfg/model: Device mfg/model:
For other solid describe source (e.g., powder, activated metal):
Activity per order Order frequency per
Activity per experiment Experiment frequency per
Maximum amount in lab at one time (including in waste):

Radionuclide 3 Chemical Form:
Physical Form: gas liquid sealed source plated source other solid
For sealed or plated source: Mfg/model: Device mfg/model:
For other solid describe source (e.g., powder, activated metal):
Activity per order Order frequency per
Activity per experiment Experiment frequency per
Maximum amount in lab at one time (including in waste):

Methods/Procedures

Describe the **laboratory procedures** performed with radioactive materials. (Reprint may be attached if it describes the methods in detail)

Radiosotope 1:

Have you performed these procedures previously: yes no

Radiosotope 2:

Have you performed these procedures previously: yes no

Radiosotope 3:

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 building(s) and room(s) where radioactive material will be used or stored, and the room use, e.g., counting, storage, laboratory.

Campus	Building	Room No.	Use
Main			
Main			
Main			
Main			

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	Mfg. & Model No.	Location

Portable Radiation Survey Instruments List the type(s), manufacturer and model number(s) of survey meters available in the facility.

Manufacturer & Model No.	Instrument / Probe Type

Describe available shielding:

Hood(s):

Radioactive Waste

Indicate the types 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Storage for Decay Half-life < 100 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewer Disposal		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Exempt biomedical <0.05 $\mu\text{Ci/g}$ of ^{14}C or ^3H				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mixed Waste Hazardous & radioactive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Off-site Disposal	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Estimate the volume of waste generated annually:

Solids & liquids stored for decay: Liters

Off site disposal: Small (5 gal, 0.7 cf) pails Liquid scintillation fluids: Small (5 gal, 0.7 cf) pails

Animal carcasses: cubic feet Mixed waste: Liters

By activity, estimate the amount of waste to be sewer disposed per month: microcuries

Training and Experience

Complete this section if you do **not** currently have approval to use radioactive materials at Drexel University or the College of Medicine.

Formal and On-The-Job Training			
Topics	Institution(s) Where Training was Received	Dates of Training	Instruction Hours Lab and Classroom
Principles of radiation protection			
Measurement / monitoring techniques and instruments			
Calculations applicable to radioactivity (e.g., half-life decay)			
Biological effects of radiation			

Personal Experience with Radioactive Materials				
Radionuclides	Maximum amounts handled (millicuries)	Institution(s) Where Experience was Gained	Duration of Experience	Type of Use

Have you ever been an authorized user: yes no If so, where:

Personnel

List other personnel who will be working with radioactive materials under your authorization.

Name	Registered as a Radiation Worker	Initial radiation safety instructions provided by PI	Attended Radiation Safety Short Course
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Certification

I agree to conduct activities under this authorization in full compliance with applicable federal, state and local regulations, and institutional policies. I have read and understand the applicable parts of the Radiation Safety Manual and agree to keep an updated Manual on file for reference in my office or laboratory. I understand and agree that it is my responsibility to post requisite signs, labels, and warnings prominently in my laboratory; to perform and document wipe tests for removable contamination after each experiment; to train or provide for training of all radioactive users under my supervision; to account for the receipt, use, and disposal of all radioactive materials; and to properly dispose of radioactive materials. I agree to contact the Radiation Safety Officer before transferring radioactive materials, before moving into or out of laboratories, and in the event of a spill or incident or emergency involving radioactive materials.

Signature: Date:

My name in the signature space above signifies my signature on this document.