

RADIATION SAFETY OFFICE

APPLICATION FOR THE USE OF RADIOACTIVE MATERIALS

A. Principal Investigator: _____

Faculty Title: _____

Department: _____ Office Phone: _____

Laboratory Address: _____ Lab Phone: _____

E-mail Address: _____

B. Complete the following chart for all radionuclides and maximum authorization limits being requested. Use mass (in grams) for uranium compounds and activity (in mCi) for all other radionuclides. If using different units for very small activities; please specify the different unit (e.g., nanoCuries (nCi)). Examples are in gray in the first 2 rows.

Radionuclide	Chemical Form	Maximum activity or mass to be handled at any one time	Maximum Activity or Mass to be Held on Authorization
<i>Natural / Depleted Uranium</i>	<i>Powders Rod Stock</i>	<i>100 g</i>	<i>500 g</i>
<i>H-3</i>	<i>Any liquid form</i>	<i>500 μCi</i>	<i>5 mCi</i>

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- C. Attach a completed and signed Statement of Training and Experience Form.
- D. Attach a completed and signed Statement of Training and Experience Form for all University employees, post-doctoral employees, students (graduate and undergraduate) and any other individual that will work directly with radioactive material under this authorization.
- E. Protocols: On a separate sheet of paper, explain the general scope of your research involving radioactive material.
- F. Waste Generation:
Mark each type of radioactive waste that will be generated by your research.

√ Type of Waste

_____ Solid Waste (paper, glassware, lab trash)

_____ Scintillation Waste:

List Brand & Type of Scintillation fluid to be used:

(NOTE: Only non-hazardous/biodegradable types will be accepted by Radiation Safety. Utilizing scintillation fluid that is an EPA listed or characteristic waste must be approved by Radiation Safety in consultation with the EH&S hazardous waste team and management).

_____ Biological Waste (animals, tissues, bedding)

_____ Liquid Waste:

Include all major constituents, i.e., Chemicals, that will be added to the liquid and approximate percentages.

Constituents other than radioisotope:

(Buffers, TCA, solvents, other chemicals)

Percentage:

_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %

Please Note: The generation of mixed waste (waste containing both radioactive material and EPA listed or characteristic hazardous waste, for example ethanol, methanol, hexane, nitric acid) must be approved by Radiation Safety in consultation with the EH&S hazard waste team and management.

EPA hazardous liquid wastes includes, but is not limited to, liquids with a pH below 2 or above 12.5; liquids with a flash point below 140 deg F; oxidizing liquids (note: nitric acid at higher concentrations is also an oxidizer); and toxic materials (methanol; toluene).

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- G. Please submit a sketch of each room in which radioactive materials will be used or stored, detailing radioactive work areas, storage areas, waste storage, hot sinks, ventilation hoods, and shielding. Also indicate locations of student or technician desks.
- H. Describe the contamination controls you will be following (i.e., weekly wipes, GM surveys, personnel monitoring), shielding needs, and other precautions that will be considered.

Note: Appropriate radiation safety procedures and techniques must also be included in your protocols. Consult with the Radiation Safety staff for assistance with radiation safety procedures, and if applicable, occupational safety procedures.

- I. List all radiation detection or measurement instruments that you will use. Include the model number and the location of the unit. **(PLEASE NOTE: Each laboratory shall be equipped with a portable monitoring device appropriate for the radionuclide to be used for contamination surveys. Use of H-3 requires access to a scintillation counter for contamination surveys.)**

<u>Type</u>	<u>Model No.</u>	<u>Location of Unit</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

- J. Please list two references of individuals who could attest to the Principal Investigator's experience with radioactive materials.

<u>Name</u>	<u>Institution</u>	<u>Phone No.</u>
1. _____	_____	_____
2. _____	_____	_____

- K. Radiation Protection Program:

I certify that all information is true and correct and that I will abide by all radiation safety procedures in the attached protocols. I certify that I will complete an amendment request for Radiation Safety approval before any changes to my radiation safety program occur, including but not limited to laboratory moves and close-outs, increases in radionuclide authorized limits or new radionuclides, changes to protocols impacting radiation safety and changes to authorized personnel directly handling radioactive material.

Signature: _____ Date: _____