UNIVERSITY OF ILLINOIS at URBANA•CHAMPAIGN

RADIATION PERMIT APPLICATION

Division of Research Safety -- 101 S. Gregory St., MC-225, Urbana, IL 61801-3070; (217) 333-2755

Applicant Name _____

Department _____

Office address _____

Phone_____ Email_____@illinois.edu

List the name(s) of those who will be associated with the permit and their associated role(s). Please answer the subsequent questions for EACH person.

I. APPLICANT (Principal Investigator and Responsible Person)

Name

_____

Has the requested permit owner received training for work with radioactive isotopes? YES ____ NO ____

Has the requested permit owner performed bench-top or laboratory manipulations using the radioisotope(s) being requested?

YES ____ NO ____

How many years of active, hands-on, experience with radioisotopes have you had? _____

To be approved to hold a permit for work with radioactive materials in the State of Illinois and the University of Illinois an individual must have a minimum of one years' experience using radioisotopes. Do you meet this requirement?

YES ____ NO ____

(The final determination will be made based on review of the provided application information)

Describe your training and experience utilizing the radioisotopes to be requested. Include information on the names of the radioisotopes, the range of activities/amounts utilized, work locations, supervisory responsibilities, and the practices and procedures used. ***Alternatively, you may submit a statement of training and experience in a separate document.***

II. ADDITIONAL LABORATORY PERSONNEL USING RADIOACTIVE MATERIALS

Name *Role(s): Supervisor, Trainer, Purchaser, User*

_____ _____

Years of active, hands-on, experience with radioactive isotopes _____

Describe your training and experience utilizing the radioisotopes to be requested. Include information on the names of the radioisotopes, the range of activities/amounts utilized, work locations, supervisory responsibilities, and the practices and procedures used. ***Alternatively, you may submit a statement of training and experience.***

Name *Role(s): Supervisor, Trainer, Purchaser, User*

_____ _____

Years of active, hands-on, experience with radioactive isotopes _____

Describe your training and experience utilizing the radioisotopes to be requested. Include information on the names of the radioisotopes, the range of activities/amounts utilized, work locations, supervisory responsibilities, and the practices and procedures used. ***Alternatively, you may submit a statement of training and experience.***

III. FACILITIES and LOCATIONS

List all labs in which you plan to use, manipulate or store radioactive materials or radiation-producing equipment and check "Yes" or "No" if these spaces are shared with other PIs/Researchers.

Building & Room Number	*Shared Space? (**If yes, please add name of responsible person**)*		
_____	Yes _____	No_____	_____
_____	Yes _____	No _____	_____
_____	Yes _____	No _____	_____

IV. MATERIALS and EQUIPMENT

List each radioactive isotope (of unsealed radioactive material) to be used, the maximum quantity (in millicuries) that you expect to possess at any one time, and the chemical/physical form of each. Maximum quantity must account for stock solutions, diluted storage/stock solutions, material in samples, and waste in the lab at any time. Note: Once approved, a permit amendment is necessary to increase a radioactive isotope quantity.

Radioactive Isotope	*Chemical/physical form*	*Maximum quantity (mCi)*
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

List each sealed radioactive source and other related information, if any are to be used. If more than three (3) please include a separate list.

Radionuclide	*Manufacturer*	*Activity/date*	*Serial number*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

List all radiation-producing equipment to be used, such as X-ray machines, particle accelerators, and other equipment capable of producing ionizing radiation.

Type of equipment	*Model #*	*Types of radiation emitted*
_____	_____	_____
_____	_____	_____

V. RESEARCH PROJECTS – Project Specific Procedures and Practices

--Please answer questions for each different/unique project that uses radioactive isotopes. --

Research Project Title: _____

Briefly describe/summarize the radioactive materials work that will be conducted in this project

What equipment will you utilize to detect radioactive contamination? Do you currently own/possess this equipment?

List all radiation detection instruments available. (Attach additional sheets if necessary)

Type of instrument	*Manufacturer*	*Type of detector (GM, scintillation, ion chamber)*
_____	_____	_____
_____	_____	_____

Provide details on the project specific procedures by including a standard operating procedure/protocol (SOP) describing the radioactive materials work. Please include:

- A description of the manipulation and handling of radioactive materials to be used in the laboratory. Include estimated amounts/activity to be used in experiments.
- A description of the facilities and equipment that are available at each location where radioactive materials are to be used. Attach drawings describing the facilities, ventilation (fume hoods, filtration, etc.), storage facilities, (containers, shielding, etc.).
- Describe contamination and exposure control procedures or techniques that will be employed.
- Describe the required shielding or shielding devices that will be required and employed. Include information on how the shielding will be used.
- Describe waste receptacles, special equipment (remote handling tools, etc.), and protective equipment to be utilized.
- Describe the laboratory's planned methods for tracking radioisotope inventories, including stock amounts, dilute/experimental aliquots, stored samples, and waste.
- Describe expected waste generation and types of radioactive waste that will be generated.
- Describe the planned procedures for waste management. Include details on storage and handling methods, storage locations, and containment including a description of procedures for managing the generated waste.
- Describe management of and response to potential spills and releases of radioactive materials. Include information on preventing spills and responding to spills, decontamination procedures, and reporting.
- Describe methods for securing and protecting radioactive materials from unauthorized use or removal.

Does the work on this project involve the use of radioactive isotopes in animals? YES ____ NO ____

If yes, provide the details in your SOP. Describe the use of radioactive materials in animals. Provide an estimate of the number of animals to be used, the dosage for each animal, the nature of samples to be taken for measurement, and plans for disposal of animal extractions and carcasses.

Will radioisotopes and forms used create radioactive aerosols, vapors, or gases that would require the use of a properly functioning fume hood (Examples include, radio-iodine compounds, tritiated water, etc.)? YES ____ NO ____

If yes, provide the details in your SOP. List locations that contain a properly functioning fume hood.

Certification

I certify that the information stated herein is true and correct. This application is made under and in conformity with all applicable federal, state, and University regulations. I understand that all individuals working in the areas where radiation hazards may exist, will be informed of the use and storage of radioactive materials; the health risks associated with radioactive materials; precautions to minimize exposure; the responsibility to promptly report any condition which may cause a violation of the regulations/license or unnecessary exposure to radiation. I further certify that no radioactive material or radiation-producing equipment will be transferred to another person or place inside or outside of the University without the prior consent of the Division of Research Safety. Under no circumstances will radioactive materials be used in humans.

Signature of applicant:_____ Date:_____

For DRS use only Application checklist

☐ Waste receptacle area ☐ Hoods available (if necessary) ☐ Sink for liquid disposal

☐ Check lab exits/shielding ☐ Work areas are clearly marked ☐ Radiation detector available

☐ Explain purchase request process

Checked by: _____ Date: _____

DRS use only

This permit application is for a(n): ☐ New permit. Permit #_____

☐ Amendment to permit #_____

☐ Renewal of permit #_____

For DRS Use Only
Comments